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THE IMPORTANCE OF TELLURIUM AS A HEALTH HAZARD IN INDUSTRY—A PRELIMINARY REPORT.

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The purpose of this paper is to invite the attention of industrial hygienists and physicians to the importance of tellurium as an industrial health hazard. Before proceeding with this subject, however, we deem it advisable to give a résumé of the chemistry of this element.

Chemistry.

Early history.—Although tellurium was first recognized as a distinct element by Klaproth in 1798—16 years after Müller von Reichenstein had first suspected the presence of a new metal in an auriferous mineral from Transylvania—not a great amount of knowledge of the element is available. The element was carefully studied by Berzelius in 1826, and since that time very little has been contributed concerning it. This in the past was, no doubt, due to the fact that the metal was scarce, since the only method of obtaining it was a very lengthy one of extraction applied to large masses of ores. Even when tellurium was so obtained, it was not certain that it was the same as had been previously described, because of the fact that the methods of purification were very crude and imperfect.

Chemists have been given the opportunity to study tellurium closer of late years because it is now obtained from the dross produced in electro-refining. The slime which settles to the bottom of the electrolytic tanks is treated to recover the more precious metals, and the residuum is then treated to obtain the tellurium by a method which will be described later.

Occurrence.—Tellurium occurs in the free state alone in small quantities in some minerals. More frequently it is found in the free state associated with gold, silver, selenium, or iron, but is usually combined with some metal as the telluride. Crystals of pure tellurium are rare in nature, but they do exist. They are usually minute hexagonal prisms with rhombohedral terminations, commonly massive, columnar to fine granular, with perfect prismatic cleavage. The most important telluride sources of tellurium are, tetradymite, $BiTe_3$; altaite, PbTe; coloradoite, HgTe; calaverite, $AuTe_2$; sylvanite, $AuAgTe_4$; petzite, Ag_3AuTe_2; and nagyagite, $(AuPb)_2(TeSSb)_3$.

With sylvanite the metal is found at Zalathna, Transylvania, and Vulcan, Colo.; also with gold ores at Offenbanya and Nagyag in Transylvania, Kalgoorlie in West Australia, Virginia, California, and Cripple Creek, Colo. Other minerals containing tellurides are found in Mexico, Chile, Brazil, Honduras, and Asia Minor. Native tellurite, TeO_2, or tellurium ocher, is found, and about 17 per cent of tellurium has been found, in the red sulphur of Japan.

Modes of formation.—Tellurium may be prepared from its minerals or from the residue in several metallurgical processes. It may be obtained from bismuth telluride by mixing it, finely powered, with sodium carbonate, rubbing it up with oil to a thick paste, calcining in a closed crucible, lixiviating with cold water, and blowing a current of cold air through the aqueous solution of the resultant sodium telluride. The tellurium then separates out as a gray powder.

Other tellurides are attacked by hydrochloric acid. The insoluble residue from them is heated with concentrated sulphuric acid, and from the dilute sulphate solution, after removing the silver as a chloride, the tellurium is precipitated by means of zinc oxide or sulphur dioxide. The alkaline residues from the bismuth ores may be acidified with hydrochloric acid and treated with sodium sulphide to precipitate the tellurium.

Tellurium may also be extracted from the slime resulting from the electro-refining of copper and lead, and some other metals. This slime settles to the bottom of the electrolytic tanks during the process of refining. It is treated to remove the metals of more value, and the residuum is subjected to repeated leaching with hydrochloric acid. It does not seem that heat aids in this step. The slime is then filtered through a filter press, and the resultant bright yellow filtrate treated with sulphur dioxide to precipitate the tellurium. By this process the selenium, which is very frequently present with the tellurium through all of the above steps in the recovery, is precipitated along with the tellurium by the sulphur dioxide. Complete precipitation is not obtained because of the rapid increase of the acid content of the solution, caused by the hydrochloric acid being set free, and also the sulphuric acid formed and liberated. By evaporation of the liquid the hydrochloric acid can be driven off, and an additional precipitation is then obtained. Further precipitation can be caused by acid sodium sulphite. After this has been done, heating will cause more precipitation of the tellurium without the addition of a precipitant.

Metallic magnesium will completely precipitate the tellurium from a solution of the tetrachloride in hydrochloric acid. The excess of hydrochloric acid should be small and a slight excess of magnesium should be added. This latter can be easily destroyed by

heating or boiling, when it decomposes to form magnesium hydroxide, which can be removed by neutralization with acetic acid.

Tellurium can be recovered from a mixture of selenium and tellurium by the action of electrolytic chlorine. The tellurium, being the more metallic of the two elements, is more readily attacked and converted into the chloride at low temperatures to the exclusion of the selenium.

Properties.—Tellurium is a bluish-white silverlike element possessing metallic luster. Its atomic weight is 127.6. It is a poor conductor of heat and electricity. Its specific gravity is 6.26. It melts at 452° C. When slowly cooled from the molten state it forms hexagonal rhombohedral crystals, isomorphous with sulphur and selenium. When heated in the air it burns with a blue flame to form tellurous oxide (TeO). When heated in a sealed tube it sublimes to form prismatic crystals. Tellurium is very brittle and has a hardness of from 2 to 2.5. It boils at a red heat and volatilizes readily when heated in a stream of oxygen. In an almost perfect vacuum it boils at 478° C. The vapor of tellurium is golden yellow and consists of diatomic molecules. Tellurium is precipitated by reducing agents in an amorphous form which has a specific gravity of 6.015. When heated this is converted into the crystalline form with the evolution of heat. By careful reduction of dilute solutions of tellurium salts, brown and blue colloidal solutions may be obtained.

Tellurium is not attacked by hydrochloric acid, but reacts readily with nitric and sulphuric acids and concentrated potassium hydroxide. It is insoluble in carbon disulphide. Tellurium reduces solutions of gold and silver salts and reacts with thionyl chloride and similar chlorides to form the tetrachlorides.

In physical properties tellurium resembles the metals, but in chemical properties it is decidedly nonmetallic. It forms one of the oxygen family of elements and is closely related to sulphur and selenium of the same family.

Acids of tellurium and their salts.—Berzelius, in the early part of the nineteenth century, showed that tellurium forms two oxygen acids—namely, tellurous acid, H_2TeO_3 and telluric acid, H_2TeO_4, of which he prepared the latter acid and showed it to have the composition H_2TeO_4–$2H_2O$. Tellurous acid may be prepared by pouring a solution of tellurium in nitric acid into an excess of water, the acid being precipitated out as a white amorphous powder. Berzelius prepared a great number of the salts of both tellurous and telluric acids, and demonstrated that nearly all of the metals yield insoluble salts with these acids. The soluble tellurates of sodium, potassium, and cerium received the greater amount of the attention of subsequent workers. Hutchins did extensive studies upon the tellurates of potassium, mercury, zinc, copper, and silver. Although telluric

acid is a weak acid, hot concentrated solutions of it will attack mercury, silver, lead, tin, arsenic, antimony, bismuth, nickel, zinc, aluminium, and cadmium. Telluric acid forms a number of complex superacid salts, such as normal potassium tellurate, K_2TeO_4–$5H_2O$; hydrogen potassium tellurate, $HKTeO_4$; quadracid potassium tellurate, K_2TeO_4–H_2TeO_4–$3H_2O$; and potassium tetratellurate, K_2TeO_4–$3H_2TeO_4$–H_2O. Telluric acid may be prepared by fusing either tellurium or tellurium oxide with a mixture of potassium nitrate and potassium carbonate: $Te + K_2CO_3 + 2KNO_3 = 2K_2TeO_4 + N_2 + CO$. The fused mass after solution in water is mixed with a solution of barium chloride, which precipitates barium tellurate, this being decomposed by the addition of the exact amount of sulphuric acid. After filtration the clear filtrate deposits crystals of telluric acid, H_2TeO_4–$2H_2O$. Upon being heated to 160° C. these crystals lose their water and the anhydrous acid in the form of powder is left.

Tellurous acid gives rise to both acid and normal salts; thus with potassium it forms hydrogen potassium tellurite, $HKTeO_3$ and dipotassium tellurite, K_2TeO_3. It forms superacid salts such as quadracid potassium tellurite, $HKTeO_3$–H_2TeO_3, and potassium tetratellurite, K_2TeO_3–$3TeO_2$.

Tellurides.—Sir Humphrey Davy during the course of his studies upon the alkali metals prepared the tellurides of sodium and potassium by direct union and the reduction of mixtures of the alkali carbonates and tellurium oxide with water. He describes them as alloys of the metals with tellurium, stating that they dissolved in water to a dark-red color and when acidified yielded a gas similar to hydrogen sulphide. Berzelius prepared hydrogen telluride, obtaining red solutions also, by absorbing the hydrogen telluride in fixed alkalis.

Hydrogen telluride may be prepared by heating tellurium in hydrogen. These elements combine to form H_2Te, which exhibits properties of being decomposed by heat and depositing the element as a crystalline sublimate. Hydrogen telluride may also be obtained by the action of hydrochloric acid upon zinc telluride: $ZnTe + 2HCl = ZnCl_2 + H_2Te$. It precipitates metals from their solution as does hydrogen sulphide. It is soluble in water, the resulting solution gradually absorbing oxygen from the air and the tellurium precipitating out.

Halogen compounds.—Two chlorides of tellurium are known, $TeCl_2$ and $TeCl_4$. Corresponding bromides and iodides have been prepared.

Organic compounds of tellurium.—There have been a few organic compounds of tellurium prepared, such as dimethyl telluride, $Te(CH_3)_2$; diethyl telluride, $Te(C_2H_5)_2$; and dinapthyl telluride, $Te(C_{10}H_7)$.

Tests for presence of tellurium.—1. Acid sodium sulphite will indicate the presence of tellurium in solutions where there is as small an amount as 0.000000214 gm. of tellurium per cc. of solution. The test is performed by treating the tellurium with hydrochloric acid, with the aid of as little chlorine gas as possible, and then heating it to expel the excess of chlorine. Acid sodium sulphite is added to the solution, and it is then filtered. The black precipitate showing on the filter paper is tellurium, which may be confirmed by further tests.

2. When tellurium is heated on charcoal a white sublimate of tellurium is formed. It is volatile, and when touched with the reducing flame it gives the flame a pale greenish color.

3. When a telluride is heated in concentrated sulphuric acid it gives a deep crimson color to the solution. The color will disappear if the acid is heated too hot, or if after cooling the solution is diluted with water.

Industrial preparation of tellurium.—The methods used for the industrial preparation of tellurium have been outlined above, the chief method consisting in repeated leaching of the residuum left after the more valuable metals have been recovered from the slime obtained from the electrolytic tanks in electrorefining plants, and the precipitation of the tellurium by sulphur dioxide. It is not necessary to further describe the method at this time.

In 1916 there was practically no demand for tellurium, and hence the production of the metal was curtailed. The selling price at that time was from $3 to $5 a pound.

In 1917 two companies reported the production of small amounts of tellurium. The prevailing selling price of tellurium at that time was around $3 a pound.

It must be mentioned that the slimes from the electro-refining of lead contain larger amounts of tellurium than of selenium, which almost always accompanies tellurium, while the slimes from the copper electro-refining tanks contain a larger percentage of selenium than of tellurium.

Industrial uses of tellurium.—Tellurium has not as yet been used to a great extent in industry. Many research organizations and individual investigators are attempting to discover means whereby it can be advantageously used, but no wide use has been suggested up to the present time. It has been used in a medicinal way to some extent, but the largest use in the past has been in the glass industry. During the year 1917 considerable quantities of tellurium were bought by glass makers. Tellurium gives a blue, red, or brown color to glass, depending upon the method of its use. It acts as a coloring agent in glass only under reducing conditions, in which case it gives rise to blue or brown colorations if present as a colloidal solution of

the element, or a red color if present as the telluride. The colloidal particles in the blue glass are larger than those in the brown.

The reducing property of tellurium has also been utilized to a small extent, at least experimentally, in the steel industry, where it functions in much the same way as coke. It has also been used somewhat in bacteriological work as an indicator of bacterial life. Here, again, its reducing property is utilized.

TELLURIUM AS AN INDUSTRIAL POISON.

Although a large amount of experimental work has been done with tellurium both in chemical and physiological studies, it apparently never got beyond the laboratory stage. It did not seem to occur to anyone that tellurium might act as an industrial poison. This may be due to the fact that only recently has it been encountered industrially in fairly large quantities.

Occurring as it does as an impurity in copper and lead ores, it is in the refining of these metals that it is now met with in greatest amounts. Perhaps its most fruitful source is in the electrolytic refining of lead. In this industry it occurs as fumes in the form of hydrogen telluride, and as dust in the form of tellurous oxide and the tellurates.

The possibility that tellurium might act as an industrial health hazard first came to our attention in the fall of 1918. We were then making a study of lead poisoning in an electrolytic lead refinery. During this study it was noted that practically all of the men examined from one department smelled strongly of garlic. At first this odor really was attributed to garlic, until we ascertained that no garlic had been eaten by these men. Further investigation revealed that a number of these men complained of a dry skin and a loss of the sweat function. As such findings could not well be attributed to lead poisoning, we sought to discover their true cause, which after investigation we assigned to tellurium. No other men in the plant complained of such symptoms, and no others came into contact with tellurium.

Exposure.—The men in question were working in the silver refinery around blast furnaces and were subjected to high temperatures. Here the slime from the electrolytic tanks was treated to remove the Doré metal, and tellurium was encountered as an impurity. The temperature attained in the blast furnaces was about 1,200°–1,400° F., and tellurium fumes were given off probably in the form of hydrogen telluride, a compound analogous to sulphuretted hydrogen and arseniuretted hydrogen. Tellurium also was present in the dust about the furnaces, probably in the form of the oxide and telluride.

Entrance into body.—The main canals of entry into the body are therefore through the respiratory and the alimentary tracts. Some of

the dust undoubtedly finds its way into the lungs along with the fumes, but the greater portion of it is caught in the nasopharynx and swallowed. Lehman and Saito have shown experimentally that when dust is breathed, only 12 per cent reaches the lungs, whereas 70 per cent reaches the alimentary canal. We are inclined to believe that the salts of tellurium can also be absorbed through the skin. This seems to be particularly true of tellurous acid, as a short time after this substance has been handled the garlic odor of methyl telluride appears on the breath.

Fate in the body.—Experimental work has shown that after the salts of tellurium have gained entrance to the body through any of the above channels, they are first reduced to the metallic tellurium. Following this reduction, a methyl telluride is formed, which is very volatile and gives the peculiar garlic odor to the secretions and excretions. The synthesis of methyl telluride is one of the few known cases in which a compound of methyl is formed in the animal body. Experimentally, the greatest toxic effects of tellurium are exerted during the reduction of the salts. Reduced tellurium, however, can also exert toxic effects, although somewhat slowly.

Excretion.—The intestinal contents are pigmented by reduced tellurium, and much of the ingested substance is eliminated in the feces in metallic form; in the exhaled breath, urine, feces, and dermal secretions, as methyl telluride; and in small quantities in the urine and bile, in a soluble form.

Pathology and symptomatology.—Inasmuch as we have not yet been able to study the pathology of tellurium poisoning upon human subjects, we must rely upon the results of animal experimentation for this information.

We know that in man tellurium causes a suppression of the secretion of saliva and of the sweat. In animals even small doses markedly reduce the secretion of acid in the gastric juice and stimulate the secretion of mucus in the stomach and intestines. These effects are apparently due to a paralysis of the terminations of the secretory nerves similar to that induced by atropin. The capillaries of the splanchnic area are dilated as with arsenic. In more severe poisoning in animals there is inflammation and disintegration of the mucous membrane of the gastro-intestinal tract, with intestinal hemorrhages. There is an intense hyperemia of the organs, with multiple hemorrhagic foci. Before death there is an intense degeneration of the red cells, with a diminution of hemoglobin. Myelocytes, normoblasts, and other cells denoting destruction and regeneration of the red cells, may be found. There may also be considerable leucocytosis. As a result of the increased fragility and destruction of the red cells, large quantities of urobilin, together with some hemoglobin, are usually found in the urine. In many instances a large quantity of some

reducing substance is present. Some observers state that this is sugar and that it is associated with a hypoglycemia, thus differing from ordinary glycosurias. Others assert that there is no glycosuria, inasmuch as the reducing substance can be destroyed by the addition of acetic acid and lead acetate. Large doses produce some albuminuria due to a parenchymatous nephritis.

Knowing the pathology of tellurium poisoning, it is an easy matter to account for the resulting symptoms. In the chronic cases there is retarded gastric digestion, vomiting, loss of appetite, emaciation, and somnolence. Most animals lose an appreciable quantity of hair, due probably to diminished nutrition of the skin or to a decrease in the function of the sebaceous glands. In severe acute poisoning, there is vomiting, purging, weakening of reflexes, tremor, somnolence, followed by paralysis of the central nervous system, unconsciousness, dyspnœa, and death from asphyxia in tonic and clonic convulsions.

In man the symptoms thus far noted have been a garlic odor to the sweat and alvine discharges, dryness of the mouth, nausea, vomiting, metallic taste, somnolence, depression, constipation, and a suppression of the sweat function. As a result of the latter, the skin may become harsh and dry, and a troublesome pruritus result. The garlic odor, dryness of the mouth, metallic taste, and somnolence are early symptoms, and follow very small doses. With us they followed the ingestion of a single dose of 2 grains of tellurous oxide, and the garlic odor persisted for two and a half months. The other symptoms disappeared after about two or three days. At another time a man spilled a small container of tellurous oxide, and while scraping it up from the floor onto a paper without allowing his fingers to come into contact with it, absorbed enough tellurium (presumably through the respiratory system) to give a garlic odor to his breath for over a week and a bitter taste in his mouth for nearly two days.

As an illustration of the somnolent effects of the element, an experience of Prof. Lenher is of interest. One day, after having fused metallic tellurium in the open for several hours, he was so overcome by the influence of the volatile oxide that he lay down on his bed to sleep for a little while, expecting to arise shortly and resume his work. He slept for 18 hours, however, without waking once during that time.

Such experiences indicate a possible therapeutic use for tellurium salts as hypnotics. Their efficacy in inhibiting the sweat function has been utilized with some success in the treatment of night sweats in tuberculosis. They might also be used to diminish the acid secretion of the stomach in cases of hyperacidity. However, because of the strong garlic odor to the breath, which persists for weeks and months, and the bitter metallic taste in the mouth, they are not to be recommended.

In passing, it is of interest to note that, during the first decade of the present century, Wassermann and others aroused some enthusiasm through experiments with tellurium on malignant growths. Thiroloix and Lancrin used a colloid preparation in experiments with epitheliomata, and asserted that it led "in a brief time to reduction and disintegration of the tumefactions and metastases." In these cases the "tumors softened, the elements of their tissue, and particularly the cells, disappeared, and this disappearance was not preceded by the phenomena of necrosis and degeneration which, more or less extended, are met with in all tumors; but was brought about by a dissolution of all the cell, which began with destruction of the nucleus." The early enthusiasm created by such work has, however, not been justified by later experiments.

To sum up, then, the symptoms of tellurium absorption may be listed as follows: Garlic odor to the breath, sweat, and alvine discharges, dryness of mouth, metallic taste, nausea, anorexia, loss of weight, constipation or diarrhea, suppression of the sweat, and a dry, itching skin. Associated with these symptoms are likely to be an hypoacidity of the gastric juice, with a mild gastro-enteritis and parenchymatous nephritis. Inasmuch as the symptoms of mild tellurism are the same for man and the laboratory animals, we have reason to believe that the more severe effects, as well as the pathological changes, would likewise be similar. As yet we have met with no *severe* cases of tellurium poisoning; but we should expect such cases to exhibit violent vomiting, purging, intestinal hemorrhages, loss of reflexes, tremors, extreme depression, and finally paralysis of the central nervous system, with unconsciousness, dyspnœa, and at last death in convulsions. Associated with these symptoms there would be destruction of the red blood cells, decreased hemoglobin content, hemorrhages into the various organs, and a severe gastro-enteritis and nephritis.

Extent of the hazard.—With this much as a basis, we endeavored to learn the extent of the hazard exerted by tellurium on the workers exposed. To this end all of the men in that department were examined for evidences of absorption of and poisoning by this metal. The results of the examinations are indicated in the accompanying table. It will be noted that, of the 13 men examined, 7 showed evidences of tellurium absorption as indicated by garlic odor to the breath, sweat and urine, dryness of the mouth, and metallic taste. Five of these had a considerable inhibition of the sweat function, and the 2 who did not, had worked only 2 weeks. Three of the 5 had a dry, itching skin, anorexia, nausea, some vomiting, and some degree of depression or somnolence. It is thought that these 3 may be taken as showing evidences of mild tellurium poisoning.

Examination of workers exposed to tellurium.

	Number of worker.												
	1	2	3	4	5	6	7	8	9	10	11	12	13
Occupation	L.	S.	L.	S.	L.	S.	L.	L.	L.	S.	S.	H.	S.
Length of service	2 wks.	7 mos.	7 wks.	4 mos.	2 yrs 7 mos.	3½ mos.	2 mos.	3 wks.	9 wks.	2 wks.	2 wks.	9 mos.	1 yr. 4 mos.
Nationality	P.	P.	P.	P.	H.	P.	B.	H.	P.	P.	P.	A.	P.
English-speaking	—	—	—	—	—	—	—	##	##	##	##	##	—
Appetite	##	Poor.	##	##	##	##	##	##	##	Poor.	##	##	Poor.
Nausea	0	##	0	0	##	0	0	0	0	##	0	0	##
Vomiting	0	Some.	0	0	0	0	0	0	0	##	0	0	Some.
Constipation	0	##	0	##	##	0	0	0	0	##	0	##	##
Diarrhea	0	0	0	##	0	0	0	0	0	0	0	0	0
Dry mouth	0	##	##	0	0	0	0	0	##	##	##	##	##
Metallic taste	0	##	##	0	0	0	0	0	##	##	##	##	##
Dry, itching skin	0	# Rash.	# Rash.	0	0	# Rash.	0	0	0	# Rash.	0	# Rash.	# Rash.
Suppression of sweat	0	##	##	0	0	0	0	0	##	0	0	##	##
Somnolence	0	##	0	0	0	0	0	0	0	Some.	0	0	##
Blood in feces	0	0	0	0	0	0	0	0	0	0	0	0	0
Reflexes	0	0	0	0	0	0	0	0	0	0	0	0	0
Loss of hair	0	##	0	0	0	0	0	0	0	0	0	0	0
Odor of breath	Natural.	Garlic.	Garlic.	Natural.	Natural.	Natural.	Natural.	Natural.	Garlic.	Garlic.	Garlic.	Garlic.	Garlic.
Odor of sweat	Natural.	Garlic.	Garlic.	Natural.	Natural.	Natural.	Natural.	Natural.	Garlic.	Garlic.	Garlic.	Garlic.	Garlic.
Odor of urine	Natural.	Garlic.	Garlic.	Natural.	Natural.	Natural.	Natural.	Natural.	Garlic.	Garlic.	Garlic.	Garlic.	Garlic.
Albuminuria	0	0	0	0	0	0	0	0	0	0	0	0	0
General nutrition	G.	G.	G.	G.	G.	G.	G.	G.	G.	F.	G.	G.	G.
Susceptibility to heat exhaustion	None.	None.	None.	None.	None.	None.	None.	None.	None.	None.	None.	None.	None.

NOTE.—In order to avoid confusion everything has been eliminated from this table which does not relate to tellurium effects.
Occupations: L=laborer; S=shiftman; H=handyman. *Nationalities:* P=Polish; B=Bulgarian; A=Austrian; H=Hungarian.
G=good; F=fair; #=Yes or Normal (consider the connotation); —=No

It is worthy of note that six of the men examined had a rash. This rash was distributed quite generally over the body, and it is probable that the dry skin, incident to the complete or partial suppression of the sweat function, had something to do with its inception. Their condition is somewhat parallel to that which occurs when the normal fat content of the skin is removed because of contact with certain types of cutting oils. The normal resistance of the skin to light infection is thereby removed, and various grades of infection and dermatitides frequently result.

It is to be noted that 8 of the 13 could not speak English, and so histories were elicited only with great difficulty. Perhaps if a good interpreter had been at hand more evidences of tellurium poisoning would have been discovered.

Attention is invited to the length of service of the men exposed. The tenure of employment of the majority of them was very short, so that in a number of cases the mild chronic effects of tellurium could scarcely have had time to make themselves felt. No. 5, who had worked here for the longest period (2½ years) was exposed only at rare intervals to the hazard.

The garlic odor on the 7 men mentioned above was very marked. In fact, so marked was it that a number of people who were in the habit of riding on the same street car which took these men to and from work complained to a member of the local council about "the foreigners who ate so much garlic riding on the street cars with other people."

Taken by themselves, the effects which these men exhibited do not seem very severe, and if they were all that are to be considered we should probably not deem tellurium poisoning of much importance. There are several important secondary effects, however, which must be considered. It must be remembered that in their work these men are subjected to high temperatures and are therefore exposed to the possibility of heat exhaustion. Since tellurium inhibits the sweat function, the exposure to the fumes and dust of tellurium renders these men more susceptible to heat exhaustion. Reference to the table will show that none of these men had apparently an increased susceptibility to heat exhaustion, but it must also be noted that only one of them (No. 13) had worked long enough to know whether he was more susceptible or not. The examinations were made in the very early spring before the "season" for heat exhaustion had arrived, and the remainder of the men had worked such a short time that they had not yet passed through any of the really hot periods which come during the summer months. The negative answers to this question are therefore not significant.

Another effect which we may expect from prolonged exposure to tellurium is impaired nutrition, due to the more or less complete inhibition of the secretion of saliva and the other digestive juices. Some of the men examined already had digestive disturbances, as evidenced by anorexia, nausea, and vomiting, but the condition had not progressed sufficiently far to cause emaciation or chronic dyspepsia, probably because of the fact that the men had not been exposed to the poison for sufficiently long periods of time. The same is true of nephritis and anemia.

Diagnosis.—From the foregoing it is evident that many of the effects of tellurium absorption are similar to those produced by arsenic, antimony, selenium, and lead. Inasmuch as these metals are nearly always present with tellurium industrially, it may become quite a problem to be able to say definitely which metal is causing the symptoms. Several symptoms of tellurium poisoning are, however, quite distinctive. These are (1) suppression of sweat, (2) dryness of the mouth, and (3) the very pronounced garlic odor to the excretions. Ingestion of arsenic may give a garlic odor, but it is very faint as compared with that produced by tellurium, and requires much larger doses to produce.

If in doubt, positive evidence of tellurium absorption may be obtained by tests of the urine and feces, which contain methyl telluride. The feces also contain metallic tellurium. The presence of methyl telluride may be ascertained by heating the urine or feces with concentrated sulphuric acid, when a crimson color will result. For this test to be positive, however, the methyl telluride must be present in fairly large amounts. The acid sodium sulphite test for metallic tellurium may be used, as described in a preceding paragraph.

Prevention.—This is much the same as for other metallic poisons.[1] It consists in the supplying of proper working conditions by the employer and the observance of proper rules of hygiene by the employee. Adequate natural and artificial ventilation is essential, so that fumes may be removed at their source. Respirators should be furnished and the men required to wear them when working in dusty atmospheres, as when cleaning flues. Competent medical supervision is becoming more and more of a necessity in all industries, and is doubly important where the workers are exposed to industrial poisons. Adequate drinking and washing facilities, together with separate lunch rooms and locker rooms, should be provided. Particular attention should be paid to tellurium poisoning during the summer months when the danger of heat exhaustion is at its height. The men should be watched carefully for symptoms and withdrawn from exposure to high temperatures as soon as they begin to exhibit tellurium effects.

[1] A note on "Precautionary Measures to Prevent Lead Poisoning" was published in Public Health Reports, Dec. 19, 1919, pp. 2905-2907.

The education of the workers in matters of personal hygiene should be one of the aims of the medical departments of all industries, for by this means many industrial as well as other diseases would be prevented. In order to reduce the ingestion of tellurium dust to a minimum, eating in workrooms should be prohibited and the men should be required to wash carefully before eating. Proper care of the skin and bowels should be insisted upon, so that the avenues of elimination may be left open.

Treatment.—The most important factor is removal of the cause. If the case is mild and gastro-enteritis has not yet developed, all that is necessary may be to administer laxatives to keep the bowels open. If the case is more severe and there is diarrhea from the gastro-enteritis, a liquid diet is indicated, together with the administration of bismuth. The patient should be urged to drink water copiously in order to favor excretion. For the same reason sweating should be induced. If hot drinks, hot baths, and hot packs are unavailing, pilocarpin hydrochloride, $\frac{1}{8}$ grain, may be injected hypodermically. This will serve to counteract the effect of tellurium upon the secretory nerves of the skin and will promote copious sweating. It will also serve to stimulate the secretory nerves of the gastro-intestinal tract, thus relieving the hypochlorhydria caused by the tellurium and improving digestion. Until the gastric secretion is restored, dilute hydrochloric acid may be given as a temporary measure to relieve the dyspepsia.

If the case is sufficiently severe to cause anemia, iron may be indicated.

Other treatment is symptomatic, the various symptoms being met as they arise.

Prognosis.—The chronic symptoms will gradually disappear if the source of the poisoning is promptly removed as soon as the diagnosis is made. Unless the poisoning has been very severe, it is not likely that any of the effects will persist long after the removal of the cause. Even in the more severe cases, the nephritis, being parenchymatous, will clear up. Until tellurium is manufactured upon a much larger scale it is not likely that the severe acute poisoning or the more severe effects of chronic poisoning will occur. The prognosis for this type of poisoning must therefore be based upon animal experimentation and would in the main be unfavorable.

Summary.

Until within recent years tellurium was considered only as more or less of a chemical curiosity. With the development of the electrolytic-refining industry, however, its production has increased, and it can no longer be considered a rare element. As yet no very important industrial use has been found for it; but numerous research

organizations, among them the National Research Council, are attempting to discover ways in which it can be used on a large scale in industry. At present at least one large corporation has erected a plant for the sole purpose of isolating and refining tellurium. With the further development of such activities it is to be expected that the production of tellurium will greatly increase and that concomitantly there will be an increase in the health hazard incident to the increased exposure of the workers. We might then expect to encounter the severe effects of tellurium poisoning, such as are now manifested by laboratory animals under the influence of fairly large doses of tellurium.

The tellurium poisoning encountered thus far in industry has not been severe. The primary effects are suppression of the sweat, of the saliva, and of the acid in the gastric juice. This leads to a dry, itching skin, dry mouth, metallic taste, anorexia, nausea, vomiting, indigestion, and constipation. Somnolence is often a prominent symptom. The earliest symptom of tellurium absorption is the garlic odor to the secretions and excretions due to methyl telluride. Secondary effects to be expected are impaired nutrition with emaciation and, where the workers are exposed to high temperatures, increased susceptibility to heat exhaustion.

The diagnosis of tellurium poisoning may be made from the garlic odor of the excretions, the suppression of the sweat, the dryness of the mouth, and the demonstration of tellurium in the urine or feces.

The preventive measures are similar to those used for other metallic poisons and may be summed up as good working conditions and proper personal hygiene.

In treatment, of course, the most important measure is the removal of cause. After that pilocarpin may be used to counteract the effect of the tellurium, and the avenues of elimination should be opened and excretion favored by promoting secretions, diuresis, and free bowel movements. Hydrochloric acid may be administered to remedy the deficiency of acid secretion. The remainder of the treatment is symptomatic.

The prognosis so far has been good, the condition gradually improving upon prompt removal of the cause. This is due to the fact that no serious cases have thus far been encountered. It is thought that the prognosis will be less favorable when more severe poisoning occurs as a result of greater absorption of tellurium incident to its increased production.

The 13 workers reported are still under observation and physical examinations will be made from time to time to observe their condition. New workers in the department will also be closely watched. Along with this, laboratory work is being done to determine more accurately the toxicity of tellurium and its effects upon the blood, blood pressure, kidneys, etc.

It is hoped that samples of the air which the men breathe may be collected while they work, so that determinations of the amount of tellurium taken into the lungs may be determined. Similar determination of the amounts ingested would also be of value, and it is expected that they will be made.

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Those interested in the study of tellurium may find some interesting data along historical, chemical, physiological, and pharmacological lines in the following references, many of which can be obtained from the library of the Surgeon General's office, U. S. Army. This bibliography is fairly complete.

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THE COMMUNITY WITHOUT A PHYSICIAN.

The Plan of an Isolated Community in Wisconsin for Securing Competent Medical Attention.

By ROBERT OLESEN, Passed Assistant Surgeon and Epidemiologic Aide, United States Public Health Service, with the Wisconsin State Board of Health.

The plight of the small, isolated community which has no medical attention is particularly trying at all times, but especially so during an epidemic such as that which recently swept the country. At such times it is not unusual for many persons to be ill, and even to die, without once being visited by a physician, nurse, or other person skilled in the care of the sick.

The Wisconsin State Board of Health is frequently in receipt of communications from bereaved parents and relatives, telling of their inability to obtain the services of physicians during the fatal illness of members of their families. Sometimes, too, a decided spirit of vindictiveness, for which the holder can scarcely be blamed, is manifested. It is not cheering to read such letters, for the writers are invariably convinced that timely medical advice and attention would have saved the lives of their loved ones. The writers of many of these letters are distinctly at a loss to understand why skilled physicians are not made available for all localities, regardless of their remoteness. They feel that the State should, when necessary, subsidize physicians and nurses so that no one shall suffer unnecessarily because of his living in an unfortunate geographic location.

Properly to provide for the medical and surgical care of people in isolated places would manifestly impose an exceedingly heavy burden on the State. Moreover, the persons in the more thickly populated districts would probably be unfairly taxed for the care of those in sparsely settled places. It is a difficult matter to induce a physician to undertake the practice of medicine in any thinly settled section, for the work is unusually difficult and the compensation small. Unless, therefore, some special inducement is offered, it is evidently impossible to secure the services of a skilled medical attendant in such a place.

Realizing, however, the urgent need for reliable and constant medical service, as well as appreciating the necessity for compensating adequately the physician who undertakes the work, at least one community in Wisconsin has approached the problem in a clear-cut, business-like manner. In their own words they have "decided to take the matter in their own hands."

The enterprising officials of a township in a county located in the extreme northwestern part of Wisconsin have evolved a plan whereby

medical practice in their sparsely settled community will be made more attractive than has heretofore been possible. Already nearly every voter in the township has agreed to submit the proposition to a vote in the coming spring election. It is planned to levy a sufficient tax to provide an annual retainer of $1,000 for a physician who shall practice medicine and surgery in this locality. Furthermore, it is proposed to bond the township sufficiently to provide funds for the erection of a physicians' residence, the cost of which shall not exceed $5,000. The physician will be permitted to reside in this dwelling and also to have his office therein without the payment of rent. A suitable garage and barn will also be provided.

In return for the annual salary of $1,000 and the rent-free residence, office, garage, and barn, the township board reserves the right to prescribe the fees which shall be collected by the physician. Tentatively the charge of $2 per call made within the township boundaries, together with mileage at the rate of 50 cents per mile traveled, has been set as the fee the physician shall collect. When a call is made outside the township the charge shall be $3, with the same mileage charge. However, $1 of each $3 fee so charged shall revert to the township treasury. Charges for confinements, operations, and other unusual attendance are to be made in accordance with the county medical society's fee schedule.

It is the intention of the officials in charge of the project to have the physician act as health officer and serve as medical attendant to the indigent supported by the township. He is also to serve as school physician, making a physical examination of the pupils at least once in three months during the school term. Furthermore, he is to advise the members of the board of health in professional matters.

The practical operation of the plan outlined by these enterprising township officials will be viewed with keen interest by public health officials, especially those charged with protecting the health of the people of Wisconsin. It is felt that the plan has many features to commend it, particularly the provision for a definite income to the physician while he is becoming established. Under a definite contract a position of this character should prove attractive to the young practitioner. Best of all it should insure competent, reliable, and regular medical attention for the people who, through choice or necessity, are residing in comparatively remote sections of the country.

EDITORIAL NOTE.—Of interest in this connection is the following extract from an editorial which appeared in the Boston Medical and Surgical Journal for March 25, 1920:

"There are many small communities throughout the country that are without physicians. Some which have come to our notice have

been so for three years and are without any prospects of obtaining a practitioner. Such a condition is a calamity. How to secure adequate medical attention and at the same time have it efficient is the problem which is before these communities. Physicians cannot work without adequate compensation—just what that compensation must be depends upon the cost of living and the work required; but it is very doubtful if satisfactory medical service can be obtained unless the physician has an income of from $3,600 to $5,000 a year. Most communities can afford this amount.

"While we do not approve of a 'contract practice,' we do believe that communities that are without medical attention should make a contract with a physician which should take the form of a guaranty of a certain salary for the year. He should be free to charge the regular fee, but if at the end of the year he has not collected the specified amount the deficiency should be made up to him. What would this mean to the community of perhaps 1,000 persons? A guaranty of $3,600 would mean $3.60 per year per individual, or, in round numbers, 30 cents per month, or 7½ cents per week. Any community can afford that sum. There are many capable young men who have just graduated from college who would be glad to enter into such an arrangement and who would do good work. The trouble at present is that communities wish the physicians to come to them and take all the risks of making a living, regardless of the fact that larger communities usually offer better opportunities for success."

BOTULISM MADE REPORTABLE IN OREGON.[1]

Botulism has been made a reportable disease in Oregon, and the State board of health has sent out a circular to local health officers for distribution to the physicians of the State calling attention to the importance of the disease, stating that information as to the probable causative food factors should accompany the report, and detailing the symptoms as follows: "The symptoms which should attract attention to this disease are diplopia, aphonia, ptosis, progressive muscular weakness or tremors with no temperature."

[1] The form of the card which is being used in California in the epidemiological studies of botulism was published in Public Health Reports, Apr. 9, 1920, p. 895.

DEATHS DURING WEEK ENDED APR. 3, 1920.

[From the "Weekly Health Index," Apr. 6, 1920, issued by the Bureau of the Census, Department of Commerce.]

Deaths from all causes in certain large cities of the United States during the week ended Apr. 3, 1920, infant mortality (per cent), annual death rates, and comparison with corresponding week of preceding years.

City.	Population July 1, 1918, estimated.	Week ended Apr. 3, 1920.		Average annual death rate per 1,000.[2]	Per cent of deaths under 1 year.	
		Total deaths.	Death rate.[1]		Week ended Apr. 3, 1920.	Previous year or years.[2]
Albany, N. Y.	[3] 113,344	43	19.8	C 21.3	16.3	C 10.9
Atlanta, Ga.	201,732	59	15.3	C 15.8	8.5	C 8.2
Baltimore, Md.	[4] 609,981	199	15.5	A 20.3	21.1	A 15.9
Birmingham, Ala.	197,670	44	11.6	A 18.0	9.1	A 13.3
Boston, Mass.	785,245	209	13.9	A 17.8	18.2	A 14.0
Buffalo, N. Y.	473,229	162	17.9	C 19.4	24.7	C 17.6
Cambridge, Mass.	111,432	37	17.3	A 16.5	16.2	A 15.7
Chicago, Ill.	2,596,681	691	13.9	A 16.4	17.5	A 18.4
Cincinnati, Ohio.	[3] 401,158	119	15.5	C 24.8	6.7	C 10.6
Cleveland, Ohio.	810,306	238	15.3	C 13.6	18.1	C 16.1
Columbus, Ohio.	225,296	60	13.9	C 21.8	11.7	C 10.6
Dayton, Ohio.	[3] 153,830	45	15.3	C 25.9	17.8	C 16.9
Denver, Colo.	.....	82	.....	.....	9.8	.....
Detroit, Mich.	.....	274	.....	.....	24.0	.....
Fall River, Mass.	128,392	34	13.8	C 14.2	35.3	C 31.4
Grand Rapids, Mich.	135,450	45	17.3	C 13.9	13.3	C 25.0
Indianapolis, Ind.	290,389	89	16.0	C 16.9	7.9	C 19.1
Kansas City, Mo.	313,785	89	14.8	C 24.1	9.0	C 8.3
Los Angeles, Calif.	568,395	183	16.8	A 12.8	6.6	A 8.4
Louisville, Ky.	[3] 234,891	69	15.3	C 22.3	8.7	C 7.7
Lowell, Mass.	109,081	42	20.1	A 17.7	28.6	A 23.0
Memphis, Tenn.	.....	73	.....	C 20.9	4.1	C 4.8
Milwaukee, Wis.	[3] 457,147	121	13.8	A 13.8	16.5	A 26.5
Minneapolis, Minn.	383,442	103	14.0	C 21.2	11.7	C 15.4
Nashville, Tenn.	[3] 118,342	38	16.7	C 20.1	15.8	C 15.2
Newark, N. J.	428,084	97	11.8	C 24.7	19.6	C 11.3
New Haven, Conn.	151,805	59	19.9	C 17.8	16.9	C 9.4
New Orleans, La.	382,273	149	20.3	A 21.2	8.7	A 10.6
New York, N. Y.	5,215,879	1,445	14.4	C 21.6	16.7	C 13.5
Oakland, Calif.	214,206	45	11.0	A 11.1	11.1	A 11.8
Omaha, Nebr.	180,264	43	12.4	C 14.8	16.3	C 9.8
Philadelphia, Pa.	1,761,371	531	15.7	[5] 18.8	16.0	[5] 13.0
Pittsburgh, Pa.	593,303	212	18.6	C 24.3	17.0	C 14.1
Portland, Oreg.	.....	53	.....	.....	11.3	C 20.4
Providence, R. I.	263,613	80	15.8	C 21.8	16.3	C 12.7
Richmond, Va.	160,719	45	14.6	C 19.5	15.6	C 23.3
Rochester, N. Y.	264,856	66	13.0	C 16.1	15.2	C 14.6
St. Louis, Mo.	779,951	226	15.1	C 15.3	10.2	C 9.2
St. Paul, Minn.	[3] 231,595	44	9.8	C 15.8	9.1	C 15.4
San Francisco, Calif.	478,530	155	16.9	C 15.5	9.0	C 5.6
Seattle, Wash.	.....	73	.....	.....	17.8	A 12.2
Spokane, Wash.	.....	13	.....	.....	0.0	C 15.4
Syracuse, N. Y.	[3] 171,647	42	12.8	C 24.9	14.3	C 22.1
Toledo, Ohio.	[3] 243,109	75	16.1	A 16.2	9.3	A 20.5
Washington, D. C.	[3] 437,414	105	12.5	A 18.6	9.5	A 8.9
Worcester, Mass.	173,650	59	17.7	C 24.9	11.9	C 8.4

[1] Annual rates per 1,000 estimated population.
[2] "A" indicates data for the corresponding week of the year 1913 to 1917, inclusive. "C" indicates data for the corresponding week of the year 1917.
[3] 1920 enumeration, subject to revision.
[4] Population estimated as of July 1, 1919.
[5] Data are based on statistics of 1915, 1916, and 1917.

Summary of information received by telegraph from industrial insurance companies for week ended Apr. 3, 1920.

Policies in force	42,871,031
Number of death claims	8,878
Death claims per 1,000 policies in force, annual rate	10.8

PREVALENCE OF DISEASE.

No health department, State or local, can effectively prevent or control disease without knowledge of when, where, and under what conditions cases are occurring.

UNITED STATES.

CURRENT STATE SUMMARIES.

Telegraphic Reports for Week Ended Apr. 10, 1920.

These reports are preliminary, and the figures are subject to change when later returns are received by the State health officers.

ALABAMA.

	Cases.
Chicken pox	13
Diphtheria	4
Influenza	88
Measles	28
Mumps	2
Pneumonia (all forms)	20
Scarlet fever	10
Smallpox	120
Tuberculosis (pulmonary)	24
Typhoid fever	2
Whooping cough	2

ARKANSAS.

Chicken pox	47
Diphtheria	5
Hookworm	2
Influenza	128
Malaria	72
Measles	93
Meningitis	1
Pellagra	10
Pneumonia	8
Scarlet fever	7
Smallpox	20
Trachoma	2
Tuberculosis	20
Typhoid fever	6
Whooping cough	12

CALIFORNIA.

Cerebrospinal meningitis:	
Monrovia	1
Oceanside	1
San Jose	1
Stanislaus County	1
Influenza	123
Leprosy—San Diego	1
Pellagra	1
Smallpox:	
Corona	9
Scattering	57
Typhoid fever	4

CONNECTICUT.

	Cases.
Cerebrospinal meningitis:	
Waterbury	1
Chicken pox	23
Diphtheria:	
Fairfield County—Bridgeport	11
New Haven County—	
Wallingford	7
Waterbury	10
Scattering	37
Influenza	22
Lethargic encephalitis	4
Measles:	
Hartford County—Hartford	21
Litchfield County—	
Harwinton	40
Winchester	7
New Haven County—	
New Haven	25
Waterbury	11
New London County—	
New London	97
Stonington	12
Windham County—Sterling	8
Scattering	54
Mumps	15
Pneumonia	10
Scarlet fever:	
Fairfield County—Bridgeport	8
Litchfield County—Torrington	25
New Haven County—	
New Haven	9
Waterbury	31
Scattering	49
Tuberculosis	70
Typhoid fever	2
Whooping cough	32

DELAWARE.

Chicken pox	2
Diphtheria	3
Measles	84
Mumps	5
Pneumonia	3

DELAWARE—continued.

	Cases.
Scarlet fever	4
Tuberculosis	5
Typhoid fever	3
Whooping cough	1

FLORIDA.

Cerebrospinal meningitis	2
Diphtheria	20
Dysentery	2
Influenza	78
Malaria	29
Pneumonia	9
Rabies in animals	1
Smallpox	4
Typhoid fever	32

GEORGIA.

Cerebrospinal meningitis	4
Chicken pox	25
Conjunctivitis (acute infectious)	1
Diphtheria	11
Dysentery (bacillary)	2
Hookworm	14
Influenza	52
Malaria	23
Measles	68
Mumps	6
Paratyphoid fever	1
Pneumonia	45
Poliomyelitis	1
Scarlet fever	14
Septic sore throat	4
Smallpox	28
Tuberculosis (all forms)	21
Typhoid fever	4
Whooping cough	19

ILLINOIS.

Diphtheria:	
Chicago	141
Scattering	27
Influenza	31
Lethargic encephalitis:	
Aurora	1
Chicago	4
Duquoin	1
Potomac	1
Sandwich	1
Pneumonia:	
Chicago	190
Scattering	13
Scarlet fever:	
Bloomington	11
Chicago	256
Rockford	7
Scattering	72
Smallpox:	
Galesburg	14
Scattering	87
Typhoid fever	10

INDIANA.

Diphtheria:	
Delaware County	8
Marion County	10
Scattering	32

INDIANA—continued.

	Cases.
Influenza	47
Measles:	
Marion County	886
Randolph County	111
Scattering	533
Scarlet fever:	
Elkhart County	33
Marion County	44
Randolph County	25
Scattering	155
Smallpox:	
Greene County	38
St. Joseph County	29
Scattering	98

IOWA.

Cerebrospinal meningitis:	
Mills County	1
Chicken pox	3
Diphtheria	7
Influenza	4
Measles:	
Davenport	9
Dubuque	10
Scattering	9
Scarlet fever	34
Smallpox:	
Davenport	24
Ottumwa	13
Scattering	36

KANSAS.

Diphtheria	57
Influenza	144
Scarlet fever	70
Smallpox	115

LOUISIANA.

Cerebrospinal meningitis	2
Diphtheria	11
Influenza	101
Pneumonia	6
Scarlet fever	7
Smallpox	58
Typhoid fever	14

MAINE.

Chicken pox	11
Conjunctivitis	1
Diphtheria	4
Influenza	8
Measles	9
Mumps	22
Scarlet fever:	
Portland	7
Scattering	9
Smallpox	9
Tuberculosis	11
Typhoid fever	1
Whooping cough	13

MARYLAND.[1]

Cerebrospinal meningitis	1
Chicken pox	52
Diphtheria	47

[1] Week ended Friday.

MARYLAND—continued.

	Cases.
German measles	23
Influenza	175
Lethargic encephalitis	1
Measles	396
Mumps	17
Pneumonia (all forms)	94
Scarlet fever	72
Smallpox	5
Tuberculosis	70
Typhoid fever	7
Whooping cough	27

MASSACHUSETTS.

Cerebrospinal meningitis	2
Chicken pox	73
Conjunctivitis (suppurative)	8
Diphtheria	92
German measles	10
Influenza	54
Measles	841
Mumps	166
Ophthalmia neonatorum	18
Pneumonia (lobar)	77
Poliomyelitis	1
Scarlet fever	303
Septic sore throat	5
Tetanus	1
Trachoma	2
Trichinosis	2
Tuberculosis (all forms)	178
Typhoid fever	10
Whooping cough	221

MINNESOTA.

Cerebrospinal meningitis	4
Poliomyelitis	1
Smallpox:	
Lincoln County—	
Marshfield Township	8
Scattering	17

MISSISSIPPI.

Cerebrospinal meningitis	1
Diphtheria	6
Influenza	253
Scarlet fever	12
Smallpox	58
Typhoid fever	8

MONTANA.

Diphtheria	2
Influenza	31
Scarlet fever	17
Smallpox	17

NEBRASKA.

Chicken pox	19
Diphtheria	3
Influenza:	
Arcadia	49
Scattering	21
Measles:	
Central City	11
College View	11
Gering	11
Lincoln	85

NEBRASKA—continued.

	Cases.
Measles—Continued.	
Omaha	54
Oxford	22
Scattering	18
Mumps	1
Scarlet fever:	
Omaha	19
Scattering	32
Smallpox:	
Clay County	7
Lincoln	10
Omaha	9
Scattering	43
Tuberculosis	11
Typhoid fever	1
Whooping cough	7

NEW JERSEY.

Influenza	34
Pneumonia	204
Smallpox	15

NEW MEXICO.

Chicken pox	7
Diphtheria	8
Malaria	1
Measles	35
Mumps	20
Scarlet fever	9
Smallpox	10
Tuberculosis	28
Whooping cough	6

NEW YORK.

(Exclusive of New York City.)

Anthrax—Endicott	1
Cerebrospinal meningitis:	
Buffalo	3
Catskill	1
Floyd	1
Ithaca	1
Diphtheria	225
Influenza	215
Measles	986
Pneumonia	209
Poliomyelitis—Potsdam	1
Scarlet fever	197
Typhoid fever	39
Whooping cough	262

NORTH CAROLINA.

Cerebrospinal meningitis	2
Chicken pox	51
Diphtheria	23
German measles	3
Measles	72
Ophthalmia neonatorum	3
Pneumonia (all forms)	54
Poliomyelitis	1
Scarlet fever	24
Septic sore throat	3
Smallpox	76
Trachoma	2
Typhoid fever	6
Whooping cough	104

OHIO.

Diphtheria:	Cases.
Cincinnati	16
Columbus	14
Scarlet fever:	
Akron	92
Cincinnati	74
Columbus	64
Youngstown	16
Smallpox:	
New Boston	8
Youngstown	17

SOUTH DAKOTA.

Chicken pox	4
Diphtheria	3
Influenza	21
Measles	175
Pneumonia	1
Scarlet fever	89
Smallpox	50
Tuberculosis	2

VERMONT.

Chicken pox	14
Diphtheria	5
Influenza	3
Measles	80
Mumps	60
Scarlet fever	19
Typhoid fever	1
Whooping cough	17

WASHINGTON.

Chicken pox	76
Diphtheria	8
German measles	1
Influenza	2
Measles	570
Mumps	30
Pneumonia	2
Scarlet fever	53

WASHINGTON—continued.

	Cases.
Smallpox	163
Tuberculosis	9
Typhoid fever	1
Whooping cough	60

WEST VIRGINIA.

Diphtheria	14
Measles:	
Beckley	25
Parkersburg	28
Wheeling	42
Scattering	11
Scarlet fever	9
Smallpox:	
Bluefield	12
Scattering	9
Typhoid fever	1

WISCONSIN.

Milwaukee:	
Cerebrospinal meningitis	2
Chicken pox	33
Diphtheria	13
Measles	104
Rubella	5
Scarlet fever	17
Smallpox	5
Tuberculosis	17
Typhoid fever	2
Whooping cough	62
Scattering:	
Cerebrospinal meningitis	1
Chicken pox	21
Diphtheria	16
Influenza	23
Measles	325
Poliomyelitis	2
Rubella	1
Scarlet fever	84
Smallpox	105
Tuberculosis	18
Typhoid fever	6
Whooping cough	38

Kentucky Report for Week Ended Apr. 3, 1920.

Cerebrospinal meningitis:	
Boyd County	1
Chicken pox	18
Diphtheria:	
Jefferson County	13
Scattering	12
Dysentery	9
Influenza:	
Cumberland County	40
Livingston County	63
Logan County	45
Nicholas County	41
Pendleton County	25
Scattering	199
Laryngitis	1
Lethargic encephalitis:	
Campbell County	1
Franklin County	1
Jefferson County	6
Malaria	1
Measles:	
Campbell County	16
Fleming County	17
Kenton County	30
Measles—Continued.	
McCracken County	12
Nelson County	9
Scattering	44
Mumps	15
Pellagra	1
Pneumonia	51
Scarlet fever:	
Jefferson County	7
Kenton County	8
Pendleton County	7
Scattering	20
Septic sore throat	3
Smallpox:	
Knox County	7
McCracken County	10
Scattering	42
Tonsillitis	2
Trachoma	5
Tuberculosis:	
Jefferson County	13
Scattering	11
Typhoid fever	13
Whooping cough	9

ANTHRAX.

New York, N. Y., and Philadelphia, Pa.

During the week ended March 27, 1920, there were two cases of anthrax reported at New York, N. Y., and two at Philadelphia, Pa.

CEREBROSPINAL MENINGITIS.

City Reports for Week Ended Mar. 27, 1920.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Akron, Ohio	1		Lynn, Mass		1
Chicago, Ill	4	1	Mankato, Minn	1	
Dayton, Ohio	2		Minneapolis, Minn		1
Des Moines, Iowa	1	1	New Orleans, La	1	1
Detroit, Mich	4	2	New York, N. Y	3	1
Duluth, Minn	1		Oklahoma City, Okla	1	
Durham, N. C	1	1	Pawtucket, R. I		2
Fairmont, W. Va	1		Pontiac, Mich	1	
Houston, Tex	2	1	Providence, R. I		1
Huntington, W. Va		4	St. Paul, Minn	1	1
Kewanee, Ill		1	Salem, Oreg		2
Los Angeles, Calif	1		Topeka, Kans	1	1
Lowell, Mass	2				

DIPHTHERIA.

See Telegraphic weekly reports from States, p. 959, and Weekly reports from cities, p. 969.

INFLUENZA.

City Reports for Week Ended Mar. 27, 1920.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Adams, Mass	1	1	Covington, Ky	2	
Alameda, Calif	5		Cumberland, Md	6	
Alton, Ill	3		Dallas, Tex	46	3
Ann Arbor, Mich	1		Danville, Va	14	
Ansonia, Conn		1	Dayton, Ohio	2	
Ashland, Ky	2		Decatur, Ill	2	
Atlanta, Ga	32	8	Denver, Colo		6
Atlantic City, N. J	1		Detroit, Mich	8	2
Auburn, Me	1		Duluth, Minn	1	
Austin, Tex		1	Durham, N. C		1
Baltimore, Md	121	4	Eau Claire, Wis	2	
Baton Rouge, La	1	1	Elizabeth, N. J		3
Beaumont, Tex	1	1	Elmira, N. Y		1
Berkeley, Calif	5		Eureka, Calif	6	
Biddeford, Me	28		Fairmont, W. Va	2	
Birmingham, Ala		12	Fall River, Mass	5	1
Boston, Mass	33	3	Fort Wayne, Ind		1
Brunswick, Ga	5	2	Fort Worth, Tex	1	1
Burlington, Vt		6	Gary, Ind		1
Butte, Mont	1		Grand Rapids, Mich	7	2
Cambridge, Mass	9		Granite City, Ill	2	
Canton, Ohio		1	Great Falls, Mont	1	
Cape Girardeau, Mo	1		Harrison, N. J	2	
Chanute, Kans	1		Haverhill, Mass	2	1
Charleston, S. C		1	Hibbing, Minn	1	
Charleston, W. Va	2		Highland Park, Mich	1	
Chelsea, Mass	1		Holyoke, Mass	1	1
Chicago, Ill	92	18	Hoquiam, Wash	22	
Chillicothe, Ohio	1	1	Hot Springs, Ark	20	1
Cincinnati, Ohio	7	12	Indianapolis, Ind	6	6
Cleveland, Ohio	11	8	Ishpeming, Mich	1	1
Cohoes, N. Y	1		Jacksonville, Ill	2	
Columbia, S. C	3		Jamestown, N. Y	1	
Columbus, Ga	8		Janesville, Wis	1	
Columbus, Ohio		6	Jefferson City, Mo		1
Corpus Christi, Tex	17		Jersey City, N. J	1	
Council Bluffs, Iowa		1	Joplin, Mo	3	

INFLUENZA—Continued.

City Reports for Week Ended Mar. 27, 1920—Continued.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Kalamazoo, Mich.	.....	1	Port Chester, N. Y.	1	.....
Kansas City, Kans.	4	.....	Portland, Me.	3	2
Kansas City, Mo.	9	5	Portland, Oreg.	.....	2
Lackawanna, N. Y.	8	.....	Portsmouth, Va.	.....	3
Lawrence, Mass.	2	.....	Providence, R. I.	17	1
Leominster, Mass.	1	.....	Quincy, Mass.	1	1
Lexington, Ky.	2	.....	Racine, Wis.	1	.....
Lima, Ohio.	2	.....	Redlands, Calif.	2	.....
Lincoln, Nebr.	.....	2	Reno, Nev.	4	.....
Lincoln, R. I.	1	.....	Richmond, Va.	.....	1
Little Rock, Ark.	3	.....	Riverside, Calif.	4	.....
Los Angeles, Calif.	158	4	Rochester, N. Y.	.....	1
Louisville, Ky.	9	.....	Rome, Ga.	22	.....
Lowell, Mass.	7	.....	Rutland, Vt.	1	.....
Lynn, Mass.	2	1	Sacramento, Calif.	17	.....
Macon, Ga.	1	.....	St. Cloud, Minn.	1	.....
Marion, Ind.	3	.....	St. Louis, Mo.	12	1
Martinsburg, W. Va.	1	.....	San Diego, Calif.	4	1
Medford, Mass.	1	.....	San Francisco, Calif.	26	7
Memphis, Tenn.	2	2	Santa Barbara, Calif.	1	.....
Milwaukee, Wis.	2	.....	Saratoga Springs, N. Y.	14	.....
Minneapolis, Minn.	2	11	Savannah, Ga.	3	2
Missoula, Mont.	4	.....	Schenectady, N. Y.	.....	2
Mobile, Ala.	.....	2	Seattle, Wash.	6	.....
Montgomery, Ala.	2	2	Sioux Falls, S. Dak.	2	1
Morgantown, W. Va.	4	.....	Somerville, Mass.	5	.....
Muncie, Ind.	.....	1	Springfield, Mass.	1	.....
Nashville, Tenn.	3	11	Staunton, Va.	2	.....
New Britain, Conn.	4	.....	Terre Haute, Ind.	.....	1
New Orleans, La.	19	9	Toledo, Ohio.	.....	2
Newport, R. I.	1	.....	Topeka, Kans.	10	.....
New York, N. Y.	151	44	Trenton, N. J.	15	3
Niagara Falls, N. Y.	4	.....	Troy, N. Y.	1	1
North Little Rock, Ark.	8	.....	Washington, D. C.	8	5
North Tonawanda, N. Y.	3	.....	Watertown, N. Y.	5	1
Norwood, Ohio.	3	2	Wausau, Wis.	6	.....
Orange, N. J.	4	1	Westfield, Mass.	1	.....
Petersburg, Va.	12	1	Worcester, Mass.	12	2
Philadelphia, Pa.	9	11	Youngstown, Ohio.	1	2
Plymouth, Mass.	.....	1			

LEPROSY.

New Orleans, La., San Francisco, Calif., and Washington, D. C.

During the week ended March 27, 1920, one case of leprosy was reported at New Orleans, La., and one was reported at Washington, D. C. One death was reported at San Francisco, Calif.

LETHARGIC ENCEPHALITIS.

Detroit, Mich.—Week Ended Mar. 27, 1920.

During the week ended March 27, 1920, one case of lethargic encephalitis was reported at Detroit, Mich.

MALARIA.

Birmingham, Ala., Dallas, Tex., Richmond, Va., and Rome, Ga.

During the week ended March 27, 1920, there were reported two cases of malaria at Birmingham Ala., one case at Dallas, Tex., one at Richmond, Va., and one at Rome, Ga.

MEASLES.

See Telegraphic weekly reports from States, p. 959, and Weekly reports from cities, p. 969.

PELLAGRA.

City Reports for Week Ended Mar. 27, 1920.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Birmingham, Ala.		1	Lexington, Ky.		1
Charleston, S. C.		2	Mobile, Ala.		1
Columbus, Ga.	2	2	North Little Rock, Ark.	1	
Dallas, Tex.		1			

PLAGUE (RODENT).

New Orleans, La.

During the period from March 19 to April 8, 1920, inclusive, 12 plague-infected rats were confirmed in New Orleans, La. One of these was *Mus alexandrinus* and 11 were *Mus norvegicus*.

PNEUMONIA (ALL FORMS).

City Reports for Week Ended Mar. 27, 1920.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Akron, Ohio	5		Chicago, Ill.	322	67
Alameda, Calif.		1	Chicopee, Mass.		4
Altany, N. Y.	12		Chillicothe, Ohio	2	1
Alexandria, La.		2	Cincinnati, Ohio	6	14
Alexandria, Va.		2	Cleveland, Ohio	34	33
Alliance, Ohio		1	Clinton, Mass.	1	1
Alton, Ill.	1		Coffeyville, Kans.		1
Amesbury, Mass.		1	Cohoes, N. Y.		3
Anaconda, Mont.		1	Colorado Springs, Colo.		3
Anderson, Ind.		6	Columbus, Ga.	6	4
Ann Arbor, Mich.	2	1	Columbus, Ohio		13
Anniston, Ala.	3		Concord, N. H.		2
Arlington, Mass.	1	1	Corpus Christi, Tex.	4	
Ashtabula, Ohio.		1	Cortland, N. Y.	1	1
Atlanta, Ga.	2	13	Covington, Ky.		2
Atlantic City, N. J.	1		Cumberland, Md.	7	2
Attleboro, Mass.	1		Dallas, Tex.	13	1
Auburn, N. Y.	1	2	Danville, Ill.		1
Aurora, Ill.	2		Danville, Va.		1
Austin, Tex.		1	Dayton, Ohio.	3	
Barberton, Ohio.		3	Decatur, Ill.	3	1
Baton Rouge, La.	2	2	Denver, Colo.		12
Battle Creek, Mich.	3	1	Detroit, Mich.	74	48
Beaumont, Tex.	2	2	Dubuque, Iowa.	1	
Bedford, Ind.		2	Duluth, Minn.	1	2
Belleville, N. J.	1		Durham, N. C.		1
Berkeley, Calif.	1	2	East Chicago, Ind.		3
Beverly, Mass.		1	Easthampton, Mass.		1
Biddeford, Me.	12	3	East St. Louis, Ill.	1	5
Billings, Mont.		3	Elizabeth, N. J.		7
Birmingham, Ala.		7	Elkhart, Ind.		1
Bloomfield, N. J.	3	1	Elmira, N. Y.	2	1
Boston, Mass.	38	46	El Paso, Tex.		11
Bristol, Conn.	1	1	Elwood, Ind.		1
Brockton, Mass.	3	2	Eureka, Calif.		2
Brunswick, Ga.		1	Evanston, Ill.	1	
Buffalo, N. Y.		25	Everett, Mass.		1
Burlington, Iowa.		1	Fall River, Mass.	1	3
Burlington, Vt.		3	Fargo, N. Dak.		2
Butte, Mont.		3	Findlay, Ohio.	1	
Cairo, Ill.		1	Flint, Mich.		4
Cambridge, Mass.	6	8	Fort Scott, Kans.		1
Canton, Ohio.		2	Fort Wayne, Ind.		8
Cape Girardeau, Mo.	1	1	Fort Worth, Tex.	2	2
Centralia, Ill.	1		Fremont, Ohio.	2	
Charleston, S. C.		2	Galesburg, Ill.		2
Charleston, W. Va.	1		Galveston, Tex.		1
Charlotte, N. C.		2	Gardner, Mass.		1
Chelsea, Mass.	1	4	Gary, Ind.		1
Chicago Heights, Ill.		1	Geneva, N. Y.	1	1

PNEUMONIA (ALL FORMS)—Continued.

City Reports for Week Ended Mar. 27, 1920—Continued.

Place.	Cases.	Deaths.
Grand Rapids, Mich.	15	3
Granite City, Ill.	1	1
Great Falls, Mont.	1	4
Greenfield, Mass.		1
Greensboro, N. C.		2
Hackensack, N. J.	7	1
Hammond, Ind.		5
Harrison, N. J.	1	
Hartford, Conn.	5	2
Haverhill, Mass.	6	3
Hibbing, Minn.	1	
Highland Park, Mich.	5	1
Hoboken, N. J.	2	4
Holyoke, Mass.	1	3
Hot Springs, Ark.		2
Houston, Tex.		8
Huntington, Ind.	2	2
Huntington, W. Va.		5
Independence, Mo.	1	1
Indianapolis, Ind.		14
Irvington, N. J.	2	
Jacksonville, Ill.		4
Jamestown, N. Y.	5	1
Jersey City, N. J.	8	
Kalamazoo, Mich.	11	2
Kankakee, Ill.		2
Kansas City, Kans.	5	
Kansas City, Mo.	27	14
Kearny, N. J.		2
Keene, N. H.	2	1
Kokomo, Ind.		1
Lackawanna, N. Y.	1	
La Fayette, Ind.		2
La Salle, Ill.		1
Leavenworth, Kans.	1	
Lexington, Ky.	2	6
Lima, Ohio.		3
Lincoln, Nebr.		1
Little Rock, Ark.	4	
Lockport, N. Y.		1
Logansport, Ind.		2
Long Beach, Calif.	1	
Long Branch, N. J.		1
Lorain, Ohio.	3	
Los Angeles, Calif.	59	14
Louisville, Ky.	7	13
Lowell, Mass.	2	5
Lynn, Mass.	3	2
Macon, Ga.		5
Malden, Mass.		3
Manchester, N. H.	1	1
Marion, Ind.		3
Marquette, Mich.	1	
Melrose, Mass.		1
Memphis, Tenn.		12
Meriden, Conn.	1	
Middletown, N. Y.	1	1
Milwaukee, Wis.		21
Minneapolis, Minn.		4
Mobile, Ala.		2
Montgomery, Ala.	1	2
Moundsville, W. Va.		1
Mount Vernon, N. Y.	6	2
Nashville, Tenn.		4
New Bedford, Mass.	1	9
New Britain, Conn.	1	2
New Haven, Conn.		11
New Orleans, La.	1	18
New York, N. Y.	445	215
Niagara Falls, N. Y.	12	6
North Adams, Mass.		1
North Tonawanda, N. Y.	1	1
Norwood, Ohio.		2
Oakland, Calif.	2	8
Oklahoma City, Okla.		6
Olean, N. Y.		1
Omaha, Nebr.		5
Orange, N. J.	6	
Paducah, Ky.	1	
Passaic, N. J.	5	2
Peekskill, N. Y.		1
Peoria, Ill.		1
Perth Amboy, N. J.		2
Petersburg, Va.		1
Philadelphia, Pa.	61	75
Phillipsburg, N. J.		1
Piqua, Ohio.		1
Pittsfield, Mass.	1	2
Plainfield, N. J.	1	3
Pontiac, Mich.	4	2
Port Chester, N. Y.		1
Port Huron, Mich.	4	2
Portland, Me.		4
Portland, Oreg.		7
Portsmouth, Ohio.		2
Portsmouth, Va.		2
Poughkeepsie, N. Y.	1	1
Providence, R. I.		9
Pueblo, Colo.		4
Quincy, Mass.		1
Redlands, Calif.		1
Richmond, Ind.		1
Richmond, Va.		7
Riverside, Calif.		2
Roanoke, Va.	1	1
Rochester, N. Y.	21	8
Rockford, Ill.	1	1
Rock Island, Ill.	1	
Rocky Mount, N. C.		1
Rome, N. Y.	4	
Rutland, Vt.	1	
Sacramento, Calif.	2	3
St. Joseph, Mo.		2
St. Paul, Minn.		12
Salem, Mass.	3	1
Salem, Oreg.		3
Salt Lake City, Utah.		2
San Bernardino, Calif.		1
Sandusky, Ohio.	1	2
Sanford, Me.		2
San Francisco, Calif.	13	7
Saratoga Springs, N. Y.	6	
Saugus, Mass.	1	1
Savannah, Ga.		5
Schenectady, N. Y.	4	1
Sioux Falls, S. Dak.	1	2
Somerville, Mass.	1	3
South Bend, Ind.		3
Southbridge, Mass.	1	
Spartanburg, S. C.		1
Springfield, Ill.	2	2
Springfield, Mass.	3	3
Springfield, Ohio.		1
Staunton, Va.		2
Stockton, Calif.		1
Syracuse, N. Y.	1	11
Taunton, Mass.		6
Terre Haute, Ind.		2
Tiffin, Ohio.		1
Toledo, Ohio.		6
Topeka, Kans.	4	1
Trenton, N. J.	20	8
Troy, N. Y.	8	4
Wakefield, Mass.		1
Washington, D. C.		24
Watertown, N. Y.	2	
West New York, N. J.	2	1
West Orange, N. J.	1	
Wheeling, W. Va.		7
White Plains, N. Y.	3	1
Wichita, Kans.	5	1
Wilmington, Del.		4
Winona, Minn.		2
Winston-Salem, N. C.	9	2
Winthrop, Mass.		1
Worcester, Mass.	14	12
Yonkers, N. Y.	10	8
Youngstown, Ohio.	2	6

POLIOMYELITIS (INFANTILE PARALYSIS).

City Reports for Week Ended Mar. 27, 1920.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Birmingham, Ala		1	New York, N. Y	1	
Grand Rapids, Mich	1		Providence, R. I	1	
Manchester, N. H	1	1	San Francisco, Calif		1

RABIES IN ANIMALS.

Independence, Mo.—Week Ended Mar. 27, 1920.

During the week ended March 27, 1920, two cases of rabies in animals were reported at Independence, Mo.

SCARLET FEVER.

See Telegraphic weekly reports from States, p. 959, and Weekly reports from cities, p. 969.

SMALLPOX.

City Reports for Week Ended Mar. 27, 1920.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Akron, Ohio	6		Findlay, Ohio	2	
Alameda, Calif	2		Fort Scott, Kans	1	
Alton, Ill	4		Fort Worth, Tex	2	
Ann Arbor, Mich	1		Galesburg, Ill	1	
Appleton, Wis	4		Gary, Ind	1	
Ashland, Ky	2		Grand Rapids, Mich	8	
Atlanta, Ga	6		Green Bay, Wis	8	
Battle Creek, Mich	2		Hammond, Ind	1	
Beatrice, Nebr	3		Highland Park, Mich	2	
Bedford, Ind	2		Hoquiam, Wash	2	
Belleville, N. J	32		Houston, Tex	2	
Beloit, Wis	1		Huntington, Ind	2	
Billings, Mont	1		Independence, Mo	2	
Birmingham, Ala	6		Indianapolis, Ind	8	
Bloomfield, N. H	1		Iowa City, Iowa	6	
Bloomington, Ind	2		Ironwood, Mich	1	
Bluefield, W. Va	13		Jacksonville, Ill	6	
Boise, Idaho	14		Janesville, Wis	2	
Brazil, Ind	3		Joplin, Mo	2	
Canton, Ohio	7		Kansas City, Kans	4	
Cape Girardeau, Mo	11		Kansas City, Mo	37	
Cedar Rapids, Iowa	3		Kenosha, Wis	1	
Centralia, Ill	1		Knoxville, Tenn	2	
Charleston, S. C	7		Kokomo, Ind	8	
Chicago, Ill	4		La Fayette, Ind	1	
Chillicothe, Ohio	1		Laurel, Miss	22	8
Cincinnati, Ohio	1		Lexington, Ky	1	
Cleveland, Ohio	2		Lincoln, Nebr	14	
Clinton, Iowa	9		Logansport, Ind	1	
Coffeyville, Kans	1		Long Beach, Calif	13	
Columbus, Ga	2		Los Angeles, Calif	2	
Coshocton, Ohio	1		Marion, Ind	1	
Council Bluffs, Iowa	4		Marion, Ohio	2	
Dallas, Tex	17		Marshalltown, Iowa	11	
Danville, Ill	2		Mason City, Iowa	6	
Danville, Va	3		Milwaukee, Wis	6	
Davenport, Iowa	9		Minneapolis, Minn	28	
Dayton, Ohio	1		Missoula, Mont	4	
Decatur, Ill	4		Mobile, Ala	16	
Des Moines, Iowa	3		Morgantown, W. Va	1	
Detroit, Mich	16		Nashville, Tenn	1	
Dubuque, Iowa	2		New Castle, Ind	1	
Duluth, Minn	1		New Orleans, La	48	8
Durham, N. C	1		New York, N. Y	1	
East St. Louis, Ill	3		Norfolk, Va	7	
Eau Claire, Wis	1		North Little Rock, Ark	2	
El Paso, Tex	1		Oakland, Calif	2	
Everett, Wash	3		Oklahoma City, Okla	4	

SMALLPOX—Continued.

City Reports for Week Ended Mar. 27, 1920—Continued.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Omaha, Nebr.	11		San Diego, Calif.	4	
Oshkosh, Wis.	2		San Francisco, Calif.	6	
Peoria, Ill.	1		Savannah, Ga.	1	
Piqua, Ohio.	1		Seattle, Wash.	22	
Portland, Oreg.	30	1	Sioux Falls, S. Dak.	6	
Portsmouth, Ohio.	2		South Bend, Ind.	3	
Portsmouth, Va.	7		Spokane, Wash.	37	
Pueblo, Colo.	1		Springfield, Ohio.	5	
Quincy, Ill.	1		Stockton, Calif.	3	
Racine, Wis.	1		Superior, Wis.	15	
Raleigh, N. C.	1		Tacoma, Wash.	7	
Richmond, Ind.	4		Topeka, Kans.	4	
Roanoke, Va.	1		Trinidad, Colo.	1	
Rock Island, Ill.	4		Walla Walla, Wash.	4	
St. Cloud, Minn.	3		Washington, D. C.	4	
St. Joseph, Mo.	16		Wichita, Kans.	11	
St. Louis, Mo.	7		Winona, Minn.	1	
St. Paul, Minn.	8		Winston-Salem, N. C.	6	
Salt Lake City, Utah.	25		Yakima, Wash.	10	
San Bernardino, Calif.	1		Youngstown, Ohio.	10	

TETANUS.

Los Angeles, Calif., Orange, N. J., San Francisco, Calif., and Tuscaloosa, Ala.

During the week ended March 27, 1920, there were reported one death from tetanus at Los Angeles, Calif.; one at Orange, N. J.; one at San Francisco, Calif.; and one at Tuscaloosa, Ala.

TUBERCULOSIS.

See Telegraphic weekly reports from States, p. 959, and Weekly reports from cities, p. 969.

TYPHOID FEVER.

City Reports for Week Ended Mar. 27, 1920.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Akron, Ohio.	1		Macon, Ga.	1	
Albany, N. Y.	1		Manchester, N. H.	1	
Alpena, Mich.	3		Mattoon, Ill.	1	
Alton, Ill.	1		Minneapolis, Minn.	2	
Atlanta, Ga.	1		Montgomery, Ala.	2	
Battle Creek, Mich.	1		Morgantown, W. Va.	1	
Birmingham, Ala.	1		Nashville, Tenn.	1	
Bloomfield, N. J.	1	1	New Orleans, La.	2	1
Boston, Mass.	3	1	New York, N. Y.	3	5
Cambridge, Mass.	3		Northampton, Mass.	1	
Charleston, S. C.	1		Omaha, Nebr.	1	
Chicago, Ill.	2		Philadelphia, Pa.	6	
Dallas, Tex.	1		Pontiac, Mich.	1	1
Detroit, Mich.	1		Port Huron, Mich.	1	
Duluth, Minn.	3		Riverside, Calif.	2	
Elmira, N. Y.	1		St. Louis, Mo.	2	1
Fairmont, W. Va.	1		Salt Lake City, Utah.	1	1
Fall River, Mass.	3		San Francisco, Calif.	2	1
Grand Rapids, Mich.	1		Savannah, Ga.	3	
Huntington, W. Va.		1	Seattle, Wash.	1	
Ironton, Ohio.	2		Sheboygan, Wis.	1	
Kalamazoo, Mich.	1		South Bend, Ind.	1	
Lancaster, Ohio.	1		Syracuse, N. Y.	1	
La Salle, Ill.	1		Topeka, Kans.	1	
Lawrence, Mass.	1		Trenton, N. J.	2	
Los Angeles, Calif.	1		Watertown, N. Y.	1	

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS.

City Reports for Week Ended Mar. 27, 1920.

City.	Population as of July 1, 1917 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Aberdeen, S. Dak	15,926	8	3	.....	16	.....	9	.....	.....	.....
Adams, Mass	14,406	1	.....	.....	.....	.....	.....	.....	.....	.....
Akron, Ohio	93,604	71	5	.....	33	.....	96	.....	10	.....
Alameda, Calif	28,433	6	1	1	18	.....	1	.....	.....	.....
Albany, N. Y	106,632	.....	1	.....	2	.....	11	.....	6	.....
Alexandria, Va	17,959	6	.....	.....	.....	.....	1	.....	.....	1
Alliance, Ohio	19,581	6	.....	.....	9	.....	2	.....	.....	1
Alpena, Mich	13,365	.....	.....	.....	.....	.....	1	.....	1	.....
Alton, Ill	23,783	2	1	.....	14	.....	.....	.....	.....	.....
Amesbury, Mass	10,200	4	1	.....	2	.....	3	.....	.....	.....
Anaconda, Mont	10,631	2	.....	.....	.....	.....	.....	.....	.....	.....
Anderson, Ind	24,230	11	.....	.....	.....	.....	.....	.....	.....	.....
Ann Arbor, Mich	15,041	9	1	.....	27	.....	.....	.....	.....	.....
Anniston, Ala	14,326	.....	.....	.....	1	.....	.....	.....	.....	.....
Ansonia, Conn	16,974	7	.....	.....	.....	.....	.....	.....	.....	.....
Appleton, Wis	18,005	.....	1	.....	4	.....	3	.....	.....	.....
Arlington, Mass	13,073	6	1	.....	11	.....	.....	.....	.....	.....
Asbury Park, N. J	14,629	3	.....	.....	3	.....	.....	.....	.....	.....
Ashland, Ky	12,195	.....	2	.....	.....	.....	.....	.....	.....	.....
Ashtabula, Ohio	22,008	7	.....	.....	.....	.....	.....	.....	.....	2
Atchison, Kans	16,785	.....	.....	.....	.....	.....	1	.....	.....	.....
Atlanta, Ga	196,144	76	.....	.....	32	.....	4	.....	2	2
Atlantic City, N. J	55,515	10	3	.....	20	.....	2	.....	3	1
Attleboro, Mass	19,776	6	1	.....	1	.....	3	.....	.....	.....
Auburn, Me	16,607	7	.....	.....	.....	.....	1	.....	.....	.....
Auburn, N. Y	37,823	9	3	.....	.....	.....	2	.....	.....	1
Aurora, Ill	34,795	7	.....	.....	.....	.....	.....	.....	.....	.....
Austin, Tex	33,012	.....	2	.....	.....	.....	.....	.....	.....	1
Baltimore, Md	594,637	235	37	3	187	3	47	1	40	34
Bangor, Me	26,958	.....	1	.....	.....	.....	.....	.....	.....	.....
Barberton, Ohio	14,187	12	.....	.....	8	.....	2	.....	1	.....
Barre, Vt	12,401	.....	.....	.....	8	.....	.....	.....	.....	.....
Baton Rouge, La	17,544	10	.....	.....	.....	.....	.....	.....	1	1
Battle Creek, Mich	30,179	.....	2	.....	31	.....	18	.....	.....	.....
Bayonne, N. J	72,204	.....	2	.....	5	.....	1	.....	2	.....
Beatrice, Nebr	10,437	0	.....	.....	.....	.....	2	.....	.....	.....
Beaumont, Tex	28,851	17	.....	.....	.....	.....	.....	.....	.....	.....
Bedford, Ind	10,613	5	.....	.....	.....	.....	.....	.....	.....	.....
Belleville, N. J	12,797	.....	1	.....	31	.....	1	.....	.....	.....
Bellingham, Wash	31,362	.....	.....	.....	8	.....	2	.....	.....	.....
Beloit, Wis	18,547	.....	1	.....	1	.....	6	.....	.....	.....
Benton Harbor, Mich	11,009	.....	.....	.....	5	.....	.....	.....	.....	.....
Berkeley, Calif	60,427	12	2	.....	30	.....	2	.....	.....	.....
Berlin, N. H	13,892	6	.....	.....	.....	.....	1	.....	.....	.....
Beverly, Mass	22,128	7	.....	.....	2	.....	1	.....	.....	.....
Biddeford, Me	17,760	4	.....	.....	.....	.....	.....	.....	.....	1
Billings, Mont	15,123	7	.....	.....	51	.....	.....	.....	.....	.....
Birmingham, Ala	189,716	67	3	.....	16	.....	12	.....	11	4
Bloomfield, N. J	19,013	5	3	.....	3	.....	3	.....	.....	.....
Bloomington, Ill	27,462	8	.....	.....	1	.....	5	.....	2	.....
Bloomington, Ind	11,661	2	.....	.....	1	.....	.....	.....	.....	.....
Bluefield, W. Va	16,123	.....	.....	.....	.....	.....	2	.....	.....	.....
Boise, Idaho	35,951	6	.....	.....	.....	.....	1	.....	1	.....
Boston, Mass	787,813	268	41	5	192	3	61	3	51	22
Brazil, Ind	10,472	1	.....	.....	.....	.....	1	.....	.....	.....
Bridgeport, Conn	121,724	22	10	.....	3	.....	11	1	3	2
Bristol, Conn	16,318	2	.....	.....	1	.....	.....	.....	2	.....
Brockton, Mass	69,152	.....	3	.....	2	.....	3	.....	1	.....
Brookline, Mass	33,526	10	1	.....	5	.....	5	.....	2	1
Brunswick, Ga	10,984	7	.....	.....	.....	.....	.....	.....	.....	1
Buffalo, N. Y	475,781	174	.....	4	.....	.....	.....	1	.....	13
Burlington, Iowa	25,144	.....	.....	.....	.....	.....	4	.....	.....	1
Burlington, Vt	21,802	21	1	.....	.....	.....	.....	.....	1	4
Butte, Mont	44,057	19	.....	.....	1	.....	.....	.....	.....	1
Cadillac, Mich	10,158	2	.....	.....	.....	.....	.....	.....	.....	.....
Cairo, Ill	15,995	9	.....	.....	1	.....	.....	.....	.....	1
Cambridge, Mass	114,293	44	4	1	18	1	8	1	3	2
Canton, Ill	13,674	1	.....	.....	.....	.....	.....	.....	.....	.....
Canton, Ohio	62,566	24	2	.....	10	.....	6	.....	.....	.....
Cape Girardeau, Mo	11,146	2	.....	.....	6	.....	.....	.....	.....	.....
Cedar Rapids, Iowa	38,033	.....	1	.....	.....	.....	2	.....	.....	.....
Centralia, Ill	11,838	6	.....	.....	8	.....	1	.....	1	.....
Chanut, Kans	12,968	4	.....	.....	.....	.....	1	.....	.....	.....

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Continued.

City Reports for Week Ended Mar. 27, 1920—Continued.

City.	Population as of July 1, 1917 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Charleston, S. C	61,041	18					1			1
Charleston, W. Va	31,060		1							
Charlotte, N. C	40,759	12					2		4	1
Chelsea, Mass	46,405	8	1		6		5		1	
Cheyenne, Wyo	[1] 11,320	1	2		6					
Chicago Heights, Ill	22,863	4								
Chicago, Ill	2,547,201	721	115	6	309	1	315	6	251	59
Chicopee, Mass	29,950	12				1				2
Chillicothe, Ohio	15,625	4	1							
Cincinnati, Ohio	414,248	132	3		231	4	53	2	21	15
Cleveland, Ohio	692,259	220	39	3	98	2	51	1	37	15
Clinton, Iowa	27,678						7	1		
Clinton, Mass	[1] 13,075	3	4						2	
Coffeyville, Kans	18,331	4			2		3		1	
Cohoes, N. Y	25,292	8					1			
Colorado Springs, Colo	38,965	10							7	2
Columbia, S. C	35,165				3				1	
Columbus, Ga	26,306	14							1	1
Columbus, Ohio	220,135	66	5	1	133		11		4	7
Concord, N. H	22,858	9			49		4			
Corpus Christi, Tex	10,789	4	2							
Cortland, N. Y	13,321	4	4				5			
Council Bluffs, Iowa	31,838	11			9		10			
Covington, Ky	59,623	20	1		25		5			
Cranston, R. I	26,773	7	1							
Cumberland, Md	26,686	12	1		1		3		4	1
Dallas, Tex	129,738	34	4	1	5				9	5
Danbury, Conn	22,931	6			2					
Danvers, Mass	10,037						1			
Danville, Ill	32,969	7			20					
Danville, Va	20,183						2		1	
Davenport, Iowa	49,618		1		3		1			
Dayton, Ohio	128,939	50	3		81		8		9	
Decatur, Ill	41,483	9	2		38					1
Dedham, Mass	10,618	2							2	
Denver, Colo	268,439	90	6		123		8			16
Des Moines, Iowa	104,052		4	1	2		3			
Detroit, Mich	619,648	265	77	8	193	2	88	4	30	14
Dover, N. H	13,276	1								
Dubuque, Iowa	40,096				2		6			
Duluth, Minn	97,077	15			2		10		4	1
Durham, N. C	26,160	6							3	3
East Chicago, Ind	39,286	13								
East Cleveland, Ohio	13,864				8		1			
Easthampton, Mass	10,656	2	1		6		3			1
East Providence, R. I	18,485		1				3			
East St. Louis, Ill	77,312	12	1		25		1		8	1
Eau Claire, Wis	18,887				25					
Elgin, Ill	28,562	4			5		4			
Elizabeth, N. J	88,830	31	3	1	68		11		6	1
Elkhart, Ind	22,273	7	1		3		2			1
Elmira, N. Y	38,272	9	3		12					1
El Paso, Tex	69,149	50	2		31	3				10
Elwood, Ind	[1] 11,028	8								
Englewood, N. J	12,603	0			5					
Eureka, Calif	15,142	3	1						1	
Evanston, Ill	29,304	10			3		7			
Everett, Mass	40,160	9	3		50		6		2	3
Everett, Wash	37,205				13					
Fairmount, W. Va	16,111		3		2		2			
Fall River, Mass	129,828	36	6	1	11		2		5	2
Fargo, N. Dak	17,872	11	2				7	1		
Findlay, Ohio	[1] 14,858	5			1					
Flint, Mich	57,386	18	5				14			1
Fond du Lac, Wis	21,485		1		2					
Fort Dodge, Iowa	21,039	2		1				1		
Fort Scott, Kans	10,564	2			3					
Fort Smith, Ark	29,390		3				2			
Fort Wayne, Ind	78,014	34	3		15		28		1	3
Fort Worth, Tex	109,597	17	4						2	

[1] Population Apr. 15, 1910.

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Continued.

City Reports for Week Ended Mar. 27, 1920—Continued.

City.	Population as of July 1, 1917 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Fostoria, Ohio	10,959	0	.....	.....	3	.....	.....	.....	.....	.....
Framingham, Mass	14,149	6	.....	.....	2	.....	1	.....	.....	.....
Freeport, Ill	19,844	3	.....	.....	1	.....	.....	.....	.....	.....
Fremont, Ohio	11,034	3	.....	.....	11	.....	3	.....	.....	.....
Galesburg, Ill	24,629	8	.....	.....	2	.....	2	.....	.....	.....
Galveston, Tex	42,650	15	.....	.....	.....	.....	.....	.....	1	.....
Gardner, Mass	17,534	6	.....	.....	.....	.....	1	.....	.....	1
Gary, Ind	56,000	17	.....	.....	.....	.....	1	.....	.....	6
Geneva, N. Y	13,915	4	.....	.....	.....	.....	1	.....	.....	.....
Glens Falls, N. Y	17,160	5	.....	.....	.....	.....	.....	.....	.....	.....
Grand Rapids, Mich	132,861	41	1	.....	130	.....	4	1	1	.....
Granite City, Ill	15,890	5	.....	.....	13	.....	.....	.....	.....	.....
Great Falls, Mont	[1] 18,948	7	1	.....	7	.....	.....	.....	.....	1
Greely, Colo	11,942	6	.....	.....	.....	.....	.....	1	.....	.....
Green Bay, Wis	30,017	.....	1	.....	2	.....	5	.....	.....	.....
Greenfield, Mass	12,251	5	1	.....	4	.....	3	1	.....	.....
Greensboro, N. C	20,171	9	.....	.....	.....	.....	.....	.....	.....	1
Hackensack, N. J	17,412	5	.....	.....	6	.....	6	.....	.....	1
Hammond, Ind	27,016	10	.....	.....	24	.....	4	.....	.....	.....
Harrison, N. J	17,345	.....	1	.....	2	.....	1	.....	.....	.....
Hartford, Conn	112,851	30	11	.....	20	.....	8	1	3	3
Haverhill, Mass	49,180	21	6	1	37	.....	2	.....	1	1
Highland Park, Mich	33,859	10	13	.....	64	.....	5	.....	3	.....
Hoboken, N. J	78,324	24	1	.....	11	.....	1	.....	4	1
Holland, Mich	15,459	5	.....	.....	.....	.....	.....	.....	.....	.....
Holyoke, Mass	66,503	20	.....	.....	4	.....	2	.....	3	4
Hot Springs, Ark	17,690	13	.....	.....	.....	.....	.....	.....	.....	1
Houston, Tex	116,878	35	2	.....	22	.....	2	.....	.....	1
Hudson, N. Y	12,898	5	.....	.....	2	.....	3	.....	.....	1
Huntington, Ind	10,982	6	.....	.....	.....	.....	2	.....	.....	1
Huntington, W. Va	47,686	31	4	1	.....	.....	1	.....	.....	8
Hutchinson, Kans	21,461	.....	.....	.....	3	.....	2	.....	.....	.....
Independence, Mo	11,964	12	.....	.....	.....	.....	.....	.....	.....	.....
Indianapolis, Ind	283,622	101	1	.....	243	.....	17	.....	11	9
Ironton, Ohio	14,079	5	.....	.....	.....	.....	.....	.....	.....	.....
Ironwood, Mich	15,095	3	.....	.....	.....	.....	.....	.....	1	.....
Irvington, N. J	16,710	.....	1	.....	7	.....	3	.....	.....	.....
Ishpeming, Mich	[1] 12,448	4	.....	.....	.....	.....	.....	.....	3	1
Ithaca, N. Y	16,017	12	.....	.....	.....	.....	2	.....	1	1
Jacksonville, Ill	15,506	13	1	.....	3	.....	4	.....	.....	.....
Jamestown, N. Y	37,431	10	1	1	9	.....	.....	.....	1	1
Janesville, Wis	14,411	.....	1	.....	20	.....	2	.....	.....	.....
Jefferson City, Mo	13,712	2	.....	.....	.....	.....	.....	.....	.....	.....
Jersey City, N. J	312,557	.....	17	.....	80	.....	2	.....	13	.....
Joplin, Mo	33,400	3	.....	.....	.....	.....	.....	.....	.....	.....
Kalamazoo, Mich	50,408	22	1	1	23	.....	6	.....	1	.....
Kankakee, Ill	14,270	5	.....	.....	.....	.....	.....	.....	.....	.....
Kansas City, Kans	102,096	.....	4	.....	20	.....	7	.....	3	.....
Kansas City, Mo	305,816	111	6	.....	60	1	6	1	14	14
Kearny, N. J	24,325	5	.....	.....	24	.....	12	.....	1	.....
Keene, N. H	10,725	2	.....	.....	.....	.....	.....	.....	.....	.....
Kenosha, Wis	32,833	.....	.....	.....	4	.....	2	.....	.....	.....
Kewanee, Ill	13,607	8	.....	.....	.....	.....	1	.....	.....	.....
Knoxville, Tenn	59,112	.....	2	1	31	8	1	.....	4	4
Kokomo, Ind	21,929	8	.....	.....	21	.....	3	.....	.....	1
Lackawanna, N. Y	16,219	3	3	.....	1	.....	1	.....	.....	.....
La Fayette, Ind	21,481	11	3	1	12	.....	3	.....	.....	1
Lancaster, Ohio	16,086	6	.....	.....	.....	.....	.....	.....	.....	1
La Salle, Ill	12,332	4	.....	.....	2	.....	1	.....	1	.....
Lawrence, Kans	13,477	2	.....	.....	.....	.....	.....	.....	2	.....
Lawrence, Mass	102,923	17	2	.....	5	.....	10	.....	3	2
Leavenworth, Kans	[1] 19,363	8	.....	.....	.....	.....	.....	.....	.....	.....
Leominster, Mass	21,365	3	.....	.....	.....	.....	.....	.....	1	.....
Lexington, Ky	41,997	31	1	.....	11	.....	2	.....	2	1
Lima, Ohio	37,145	14	2	.....	3	.....	1	.....	.....	.....
Lincoln, Nebr	46,557	24	12	1	83	.....	5	.....	.....	3
Lincoln, R. I	10,473	.....	.....	.....	1	.....	.....	.....	.....	.....
Little Rock, Ark	58,716	.....	1	.....	2	.....	1	.....	4	.....

[1] Population Apr. 15, 1910.

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Continued.

City Reports for Week Ended Mar. 27, 1920—Continued.

City.	Population as of July 1, 1917 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Lockport, N. Y.	20,028	7	.....	.....	.....	.....	.....	.....	2	1
Logansport, Ind.	21,338	10	.....	.....	11	.....	3	2	.....	1
Long Beach, Calif.	29,163	16	.....	.....	7	.....	.....	.....	.....	1
Long Branch, N. J.	15,733	4	.....	.....	.....	.....	1	.....	2	2
Lorain, Ohio	38,266	.....	1	.....	.....	.....	2	.....	3	.....
Los Angeles, Calif.	535,485	186	42	1	45	.....	12	.....	176	33
Louisville, Ky.	240,808	80	9	1	12	.....	9	.....	8	8
Lowell, Mass.	114,366	44	7	.....	.....	.....	.....	.....	2	2
Ludington, Mich.	10,566	1	.....	.....	1	.....	1	.....	.....	1
Lynchburg, Va.	33,497	10	.....	.....	.....	.....	.....	.....	4	1
Lynn, Mass.	104,534	31	7	.....	2	1	21	.....	6	4
Macon, Ga.	46,099	25	.....	.....	32	.....	10	.....	.....	1
Madison, Wis.	31,315	.....	.....	.....	4	.....	2	.....	.....	.....
Malden, Mass.	52,243	10	7	1	19	.....	3	.....	3	.....
Manchester, Conn.	15,859	1	2	.....	.....	.....	1	.....	.....	.....
Manchester, N. H.	79,607	15	2	.....	7	.....	3	.....	5	1
Manitowoc, Wis.	13,031	.....	1	.....	.....	.....	3	.....	.....	.....
Mankato, Minn.	[1] 10,365	2	.....	.....	7	.....	.....	.....	.....	.....
Marion, Ind.	19,923	10	2	.....	16	1	2	.....	.....	.....
Marion, Ohio.	24,129	.....	.....	.....	2	.....	1	.....	.....	.....
Marquette, Mich.	12,555	2	.....	.....	.....	.....	2	.....	.....	.....
Martinsburg, W. Va.	12,984	.....	1	.....	.....	.....	1	.....	.....	.....
Martins Ferry, Ohio.	10,135	5	.....	.....	.....	.....	.....	.....	.....	2
Mason City, Iowa.	14,238	2	.....	.....	.....	.....	.....	.....	.....	1
Mattoon, Ill.	12,764	.....	1	.....	8	.....	.....	.....	.....	.....
Medford, Mass.	26,681	8	.....	.....	.....	.....	.....	.....	2	.....
Melrose, Mass.	17,724	8	1	.....	34	.....	1	.....	.....	.....
Memphis, Tenn.	151,877	70	7	.....	1	.....	5	.....	4	7
Meriden, Conn.	29,431	.....	2	.....	2	.....	3	1	3	1
Methuen, Mass.	14,320	8	.....	.....	.....	.....	.....	.....	.....	.....
Middletown, N. Y.	15,980	.....	.....	.....	.....	.....	3	.....	.....	.....
Middletown, Ohio.	16,284	4	.....	.....	.....	.....	1	.....	.....	.....
Milwaukee, Wis.	445,008	126	20	2	81	1	27	3	15	6
Minneapolis, Minn.	373,448	100	5	5	59	.....	13	.....	21	12
Mishawaka, Ind.	17,083	6	.....	.....	.....	.....	7	.....	1	1
Missoula, Mont.	19,075	6	7	.....	.....	.....	.....	.....	.....	.....
Mobile, Ala.	59,201	29	.....	.....	.....	.....	1	.....	.....	6
Montgomery, Ala.	44,039	27	.....	.....	.....	.....	.....	.....	2	.....
Morgantown, W. Va.	14,444	2	.....	.....	.....	.....	2	1	1	.....
Morristown, N. J.	13,410	4	.....	.....	1	.....	.....	.....	.....	.....
Moundsville, W. Va.	11,513	2	1	.....	4	.....	.....	.....	.....	1
Mount Vernon, N. Y.	37,991	6	2	.....	80	.....	1	.....	.....	.....
Muncie, Ind.	25,653	10	4	.....	19	.....	3	.....	.....	2
Muscatine, Iowa.	17,713	5	.....	.....	.....	.....	.....	.....	.....	.....
Muskogee, Okla.	47,173	.....	1	.....	15	.....	1	.....	.....	.....
Nashville, Tenn.	118,136	43	1	.....	5	.....	1	.....	4	6
New Bedford, Mass.	121,622	38	5	1	6	.....	7	.....	10	1
New Britain, Conn.	55,385	15	9	2	4	.....	10	.....	.....	2
Newburyport, Mass.	15,291	6	.....	.....	1	.....	.....	.....	.....	.....
New Castle, Ind.	14,144	3	1	.....	.....	.....	.....	.....	.....	.....
New Haven, Conn.	152,275	46	7	.....	35	1	11	.....	7	2
New Orleans, La.	377,010	154	8	1	6	.....	6	.....	47	22
New Philadelphia, Ohio.	10,133	.....	.....	.....	7	.....	.....	.....	.....	.....
Newport, R. I.	30,585	6	.....	.....	5	.....	1	.....	.....	1
New York, N. Y.	5,737,492	1,535	296	31	1,441	25	134	3	369	166
Niagara Falls, N. Y.	38,466	19	3	1	61	1	3	1	5	.....
Norfolk, Va.	91,148	.....	.....	.....	.....	.....	.....	.....	3	9
North Adams, Mass.	[1] 22,019	5	.....	.....	.....	.....	.....	.....	.....	.....
Northampton, Mass.	20,006	10	.....	.....	2	.....	1	.....	1	.....
North Little Rock, Ark.	15,515	.....	1	.....	1	.....	.....	.....	.....	.....
North Tonawanda, N. Y.	14,060	8	1	1	.....	.....	1	1	1	.....
Norwalk, Conn.	27,332	2	1	.....	.....	.....	.....	.....	.....	.....
Norwich, Conn.	21,923	1	.....	.....	2	.....	.....	.....	1	1
Norwood, Ohio.	23,269	28	.....	.....	10	.....	2	.....	2	2
Oakland, Calif.	206,405	61	7	.....	9	.....	10	.....	5	3
Oak Park, Ill.	27,816	16	3	.....	2	.....	9	.....	.....	1
Oklahoma City, Okla.	97,588	22	1	.....	68	1	5	.....	.....	2
Olean, N. Y.	16,927	7	.....	.....	.....	.....	.....	.....	.....	.....
Omaha, Nebr.	177,777	49	4	.....	52	.....	24	.....	.....	3

[1] Population Apr. 15, 1910.

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Continued.

City Reports for Week Ended Mar. 27, 1920—Continued.

City.	Population as of July 1, 1917 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Orange, N. J	33,636	8	.....	.....	7	.....	2	.....	.....	.....
Oshkosh, Wis	36,549	.....	.....	.....	77	.....	1	.....	.....	.....
Paducah, Ky	25,178	.....	.....	.....	6	.....	1	.....	.....	.....
Parkersburg, W. Va	21,059	5	1	.....	5	.....	.....	.....	.....	1
Parsons, Kans	15,952	.....	.....	.....	.....	.....	1	.....	.....	.....
Passaic, N. J	74,478	13	1	.....	8	.....	.....	.....	.....	.....
Pawtucket, R. I	60,666	15	1	.....	1	.....	1	.....	.....	1
Peekskill, N. Y	19,034	8	.....	.....	.....	.....	.....	.....	.....	1
Peoria, Ill	72,184	16	6	.....	4	.....	8	.....	.....	3
Perth Amboy, N. J	42,646	11	3	.....	2	.....	1	.....	.....	.....
Petersburg, Va	25,817	13	1	.....	2	.....	.....	.....	4	.....
Philadelphia, Pa	1,735,514	360	81	3	666	8	64	3	96	49
Phillipsburg, N. J	15,879	1	.....	.....	.....	.....	.....	.....	.....	.....
Piqua, Ohio	14,275	5	.....	.....	13	.....	.....	.....	.....	.....
Pittsfield, Mass	39,678	10	.....	.....	.....	.....	3	.....	4	1
Plainfield, N. J	24,330	14	.....	.....	2	.....	3	.....	.....	.....
Plattsburg, N. Y	13,111	8	.....	.....	2	.....	.....	.....	2	.....
Plymouth, Mass	14,001	7	.....	.....	.....	.....	.....	.....	.....	.....
Pontiac, Mich	18,006	12	6	.....	1	.....	2	.....	.....	1
Port Chester, N. Y	16,727	7	1	.....	.....	.....	.....	.....	.....	.....
Port Huron, Mich	[1] 18,863	11	3	.....	1	.....	1	.....	.....	.....
Portland, Me	64,720	27	3	1	1	.....	5	.....	.....	2
Portland, Oreg	305,399	55	4	.....	21	1	7	.....	1	2
Portsmouth, N. H	11,730	.....	.....	.....	2	.....	1	.....	.....	.....
Portsmouth, Ohio	29,356	8	.....	.....	1	.....	4	.....	.....	1
Portsmouth, Va	40,693	24	.....	.....	.....	.....	2	.....	1	3
Poughkeepsie, N. Y	30,786	10	.....	.....	3	1	3	.....	2	1
Providence, R. I	259,895	105	37	.....	2	.....	38	.....	.....	9
Pueblo, Colo	56,084	.....	1	.....	2	.....	.....	.....	1	.....
Quincy, Ill	36,832	10	.....	.....	.....	.....	3	.....	.....	2
Quincy, Mass	39,022	14	3	.....	.....	.....	7	.....	1	.....
Racine, Wis	47,465	.....	.....	.....	46	.....	3	.....	.....	.....
Rahway, N. J	10,361	2	.....	.....	.....	.....	2	.....	.....	.....
Raleigh, N. C	20,274	9	.....	.....	5	.....	.....	.....	1	2
Redlands, Calif	14,573	2	.....	.....	.....	.....	.....	.....	.....	1
Reno, Nev	15,514	3	.....	.....	20	.....	.....	.....	.....	.....
Richmond, Ind	25,080	5	2	.....	3	.....	1	.....	1	1
Richmond, Va	158,702	54	4	.....	84	1	4	.....	8	6
Riverside, Calif	20,496	7	2	.....	.....	.....	.....	.....	.....	.....
Roanoke, Va	46,282	3	3	.....	1	1	.....	.....	2	1
Rochester, N. Y	261,714	86	25	9	96	.....	8	.....	7	6
Rockford, Ill	56,739	11	2	.....	.....	.....	9	.....	.....	.....
Rock Island, Ill	29,452	8	.....	.....	12	.....	.....	.....	2	.....
Rocky Mount, N. C	12,673	3	.....	.....	1	.....	1	.....	.....	.....
Rome, Ga	15,607	.....	.....	.....	.....	.....	.....	.....	1	.....
Rome, N. Y	24,259	.....	.....	.....	1	.....	2	.....	3	.....
Rutland, Vt	15,038	2	.....	.....	.....	.....	.....	.....	.....	.....
Sacramento, Calif	68,994	27	2	1	21	.....	1	.....	4	4
St. Cloud, Minn	12,013	.....	2	.....	1	.....	.....	.....	.....	.....
St. Joseph, Mo	86,398	26	.....	1	.....	.....	2	.....	.....	1
St. Louis, Mo	768,630	237	69	4	525	6	20	2	26	20
St. Paul, Minn	252,465	72	13	1	57	1	12	.....	11	5
Salem, Mass	49,346	9	2	.....	.....	.....	7	.....	1	.....
Salem, Oreg	21,274	6	.....	.....	2	.....	.....	.....	.....	1
Salt Lake City, Utah	121,623	31	4	.....	2	.....	3	.....	.....	2
San Bernardino, Calif	17,616	12	.....	.....	.....	.....	.....	.....	.....	4
San Diego, Calif	56,412	23	1	.....	1	.....	3	.....	5	3
Sandusky, Ohio	20,226	10	1	.....	7	.....	.....	.....	2	1
Sanford, Me	11,217	4	.....	.....	.....	.....	.....	.....	.....	.....
San Francisco, Calif	471,023	164	22	6	40	2	14	.....	29	16
Santa Barbara, Calif	15,360	4	4	.....	.....	.....	.....	.....	.....	.....
Saratoga Springs, N. Y	13,839	4	.....	.....	.....	.....	.....	.....	.....	1
Saugus, Mass	10,210	2	.....	.....	.....	.....	1	.....	.....	.....
Sault Ste. Marie, Mich	14,130	2	.....	.....	3	.....	1	.....	.....	.....
Savannah, Ga	69,250	29	.....	.....	13	.....	1	.....	1	4
Schenectady, N. Y	103,774	24	2	1	17	1	3	.....	.....	.....
Seattle, Wash	366,445	.....	5	.....	87	.....	25	.....	.....	.....
Sheboygan, Wis	28,907	.....	.....	.....	39	.....	12	.....	2	.....

[1] Population Apr. 15, 1910.

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Continued.

City Reports for Week Ended Mar. 27, 1920—Continued.

City.	Population as of July 1, 1917 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Sioux City, Iowa	58,568	.....	.....	.....	.....	.....	3	.....	.....	.....
Sioux Falls, S. Dak	16,887	14	.....	.....	17	.....	2	.....	.....	1
Somerville, Mass	88,618	22	3	.....	39	.....	9	.....	3	1
South Bend, Ind	70,967	16	.....	.....	13	.....	3	.....	.....	2
Southbridge, Mass	14,465	3	.....	.....	.....	.....	.....	.....	.....	.....
Spartanburg, S. C	21,985	5	.....	.....	.....	.....	1	.....	.....	.....
Spokane, Wash	157,656	.....	1	.....	98	.....	3	.....	.....	.....
Springfield, Ill	62,623	17	.....	.....	1	.....	2	.....	3	1
Springfield, Mass	108,668	33	6	1	34	.....	4	.....	4	2
Springfield, Ohio	52,296	10	1	.....	19	.....	3	.....	1	1
Stamford, Conn	31,810	.....	1	.....	12	.....	.....	.....	.....	.....
Staunton, Va	11,823	2	.....	.....	.....	.....	3	.....	.....	.....
Steubenville, Ohio	28,259	10	2	.....	.....	.....	.....	.....	.....	.....
Stillwater, Minn	[1] 10,198	2	.....	.....	.....	.....	.....	.....	.....	.....
Stockton, Calif	36,209	11	1	.....	.....	.....	.....	.....	.....	.....
Superior, Wis	47,167	10	2	1	20	.....	2	.....	3	.....
Syracuse, N. Y	158,559	62	1	.....	8	.....	19	.....	5	1
Tacoma, Wash	117,446	.....	.....	.....	20	.....	5	.....	.....	.....
Taunton, Mass	36,610	24	.....	.....	.....	.....	.....	.....	2	3
Terre Haute, Ind	67,361	27	.....	.....	22	.....	5	.....	.....	3
Tiffin, Ohio	12,962	4	.....	.....	6	.....	.....	.....	.....	.....
Toledo, Ohio	202,010	78	4	1	166	1	21	1	6	9
Topeka, Kans	49,538	8	1	.....	7	.....	3	.....	.....	.....
Traverse City, Mich	14,080	0	.....	.....	1	.....	.....	.....	.....	.....
Trenton, N. J	113,974	47	3	.....	1	.....	7	.....	5	6
Trinidad, Colo	14,413	.....	2	.....	.....	.....	.....	.....	.....	.....
Troy, N. Y	78,094	24	.....	.....	2	.....	.....	.....	2	.....
Tucson, Ariz	17,324	16	.....	.....	.....	.....	.....	.....	.....	.....
Vallejo, Calif	13,803	.....	2	1	.....	.....	1	.....	.....	.....
Vancouver, Wash	13,805	.....	.....	.....	.....	.....	9	.....	.....	.....
Waco, Tex	34,015	6	2	.....	1	.....	2	.....	.....	1
Wakefield, Mass	12,947	4	.....	.....	2	.....	.....	.....	1	1
Walla Walla, Wash	26,067	.....	.....	.....	.....	.....	3	.....	2	.....
Washington, D. C	369,282	137	11	1	10	.....	14	.....	29	12
Watertown, Mass	15,188	3	.....	.....	23	.....	.....	.....	1	.....
Watertown, N. Y	30,404	.....	.....	.....	3	.....	8	.....	.....	1
Wausau, Wis	19,666	8	.....	.....	69	2	2	.....	.....	1
Westfield, Mass	18,769	7	.....	.....	.....	.....	2	.....	.....	.....
West Hoboken, N. J	44,386	14	2	1	19	.....	2	.....	2	3
West New York, N. J	19,613	4	.....	.....	9	.....	.....	.....	.....	1
West Orange, N. J	13,964	1	.....	.....	.....	.....	1	.....	.....	.....
Wheeling, W. Va	43,657	33	3	.....	32	.....	3	.....	.....	.....
White Plains, N. Y	23,331	4	1	.....	39	.....	2	.....	.....	.....
Wichita, Kans	73,597	23	3	.....	2	.....	2	.....	.....	.....
Willimantic, Conn	12,902	2	.....	.....	1	.....	4	.....	.....	.....
Wilmington, Del	95,369	24	.....	.....	33	1	2	.....	.....	4
Winchester, Mass	10,812	1	.....	.....	3	.....	.....	.....	1	.....
Winona, Minn	[1] 18,583	9	.....	.....	7	.....	3	.....	.....	1
Winston-Salem, N. C	33,136	11	.....	.....	.....	.....	.....	.....	6	.....
Winthrop, Mass	13,105	2	.....	.....	15	.....	.....	.....	.....	.....
Woburn, Mass	16,076	4	.....	.....	.....	.....	.....	.....	.....	.....
Worcester, Mass	166,106	61	2	.....	.....	.....	40	1	9	3
Yakima, Wash	22,058	.....	.....	.....	11	.....	.....	.....	.....	.....
Yonkers, N. Y	103,066	16	4	.....	70	1	1	.....	24	2
Youngstown, Ohio	112,282	44	2	.....	2	.....	16	.....	.....	2
Zanesville, Ohio	31,329	11	.....	.....	2	.....	2	.....	1	1

[1] Population Apr. 15, 1910.

FOREIGN AND INSULAR.

AUSTRALIA.

Animal Hair—Measures Against Importation of Manufactured Articles.

By order of the director of quarantine, published January 22, 1920, importation into Australia of brushes of any description or toilet articles containing or made from the hair of animals, which have been manufactured in eastern or southeastern Asia, India, Ceylon, Japan, the East Indian Islands, or the Philippine Islands, is prohibited unless a certificate from a responsible official of the health department of the country of origin is produced within 60 days of the arrival of the goods in Australia, satisfactorily identifying them and certifying that the hair contained in them or from which they are made was effectively cleansed and disinfected before manufacture.

AUSTRIA.

Compulsory Notification—Influenza.

An ordinance of the Bureau of Health of Austria, dated January 28, 1920, requires the reporting of cases of influenza occurring in the city of Vienna.

CUBA.

Communicable Diseases—Habana.

Communicable diseases have been notified at Habana as follows:

Disease.	Mar. 11-20, 1920.		Remaining under treatment Mar. 20, 1920.
	New cases.	Deaths.	
Bronchopneumonia	13	6	.....
Cerebrospinal meningitis	5	2	[1] 10
Chicken pox	10	1	18
Diphtheria	1	.....	1
Influenza	34	4	2
Leprosy	.....	.....	10
Malaria	8	.....	[2] 17
Measles	78	.....	116
Paratyphoid fever	1	1	2
Scarlet fever	4	1	4
Smallpox	2	.....	2
Typhoid fever	8	1	[3] 31

[1] From abroad, 6. [2] From the interior, 11. [3] From the interior, 12.

JAPAN.

Influenza—September, 1919–February, 1920.

Official statistics of influenza prevalence in Japan for the period from about September 15, 1919, to the first week in February, 1920, show that of 1,724,362 reported cases, 65,852 ended fatally. The largest number of fatalities was reported in Osaka, viz, 10,183. In Tokyo 9,866 deaths from influenza were reported. The following table shows some of the prefectures in which the greatest virulence of the disease was noted:

Prefecture.	Cases.	Deaths.
Osaka	358,643	10,183
Tokyo	351,444	9,866
Hyogo	110,403	3,080
Fukuoka	93,551	5,117
Oita	85,344	243

PERU.

Proposed Sanitation—Paita.

According to information dated February 26, 1920, the Government of Peru has entered into contract for the sanitation of the city of Paita, the measure proposed including good potable water supply, a sewerage system, street paving, and the reconstruction of buildings destroyed in the course of measures carried out for the eradication of disease. Plague was reported present in Paita in January, 1920, and yellow fever during the summer of 1919.

SWITZERLAND.

Influenza.[1]

Statistical data published in bulletins of the Federal Service of Public Hygiene of Switzerland, dated February 7 and 14, 1920, quoted in the Bulletin of the International Office of Public Hygiene, of February, 1920, show the occurrence of 7,958 cases of influenza in the Confederation during the week ended January 31, 1920, and 11,618 cases during the week ended February 7, 1920. Among the Cantons reporting a considerable number of cases during the two weeks under report were: Aargau, 416 and 753 cases, respectively; Basel, 1,639 and 2,458 cases; Berne, 738 and 2,108 cases; Geneva, 85 and 208 cases; Grisons, 196 and 308 cases; Lucerne, 755 and 1,305 cases; Neuchatel, 68 and 599 cases; Schwyz, 128 and 397 cases; Solothurn, 265 and 744 cases; Tecino, 2,238 and 705 cases; Vaud, 2,238 and 705 cases; Zurich, 541 and 1,863 cases. Population of Switzerland, approximate, 3,315,443.

[1] Public Health Reports, Mar. 19, 1920, p. 735.

VENEZUELA.

Influenza—Malaria—January-March, 1919.

During the period January to March, inclusive, 1919, 6,495 fatal cases of influenza were reported in Venezuela, the sex distribution being 3,128 males and 3,367 females. Of these fatalities seven occurred in foreigners.

During the period January to March, inclusive, 1919, 1,432 fatalities from malarial fever, acute and chronic, were reported in Venezuela, the sex distribution being 770 males, 662 females. Of these cases six occurred in foreigners.

Population of the Republic of Venezuela, 2,993,883, estimated December 31, 1918, on the census populations of 1881 and 1891 and natural increase, exclusive of migratory movement.

INFLUENZA.

The following information was taken from reports received during the week ended April 16, 1920:

Place.	Date.	Cases.	Deaths.	Remarks.
Algeria:				
Departments—				
Algiers	Feb. 1-20	23		
Do	Mar. 1-10	12		City of Algiers, Feb. 1-29, 1920: Cases, 20; deaths, 18.
Constantine	Feb. 1-20	26		
Do	Mar. 1-10	10		
Oran	Feb. 1-20	81		
Do	Mar. 1-10	15		
Australia:				
Brisbane	Feb. 1-14	11		
Belgium:				
Ghent	Mar. 7-13			Present.
Brazil:				
Sao Paulo	Jan. 27-Feb. 2		1	
Canada:				
Manitoba—				
Winnipeg	Mar. 7-27	38	15	
Nova Scotia—				
Halifax	Mar. 21-27	8		
Ontario—				
Fort William	Mar. 14-20	1	1	
Hamilton	Mar. 28-Apr. 3	1		
Toronto	do		8	Acute primary pneumonia, 23 deaths.
Prince Edward Island—				
Summerside	Mar. 28-Apr. 2			Present.
Quebec—				
Quebec	Mar. 21-27	39	1	
Saskatchewan—				
Regina	do	3		
China:				
Canton	Feb. 1-28			Do.
Mukden	Feb. 22-28			Do.
Costa Rica:				
Limon	Mar. 14-27		8	
Cuba:				
Caimanera	Mar. 14-20	5		
Cienfuegos	do	1	1	Mar. 27: Present.
Nueva Gerona	Mar. 10-20	2		
Czecho-Slovakia:				
Prague	Feb. 22-28		26	
Denmark:				
Copenhagen	do	2,211	86	
Egypt:				
Alexandria	Feb. 27-Mar. 4	32	4	
France:				
Bordeaux	Feb. 23-Mar. 7		11	
Marseille	Feb. 1-29		48	
Paris	Feb. 1-10		113	
India:				
Rangoon	Feb. 8-14		36	

INFLUENZA—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Japan				Sept., 1919–Feb., 1920: Cases, 1,724,362; deaths, 65,852.
City—				
Nagoya	Feb. 29–Mar. 13		43	
Prefectures—				
Fukuoka	Sept.–Feb.	93,551	5,117	
Hyogo	do	110,403	3,080	
Oita	do	85,344	243	
Osaka	do	358,643	10,183	
Tokyo	do	351,444	9,866	
Mexico:				
Vera Cruz	Mar. 22–28		26	Influenza and pneumonia.
Norway:				
Christiania	Feb. 29–Mar. 6	3		
Trondjhem	Feb. 1–29	905	5	
Panama:				
Colon	Mar. 8–14	14		
Spain:				
Bilbao	Jan. 10–Feb. 10			Present.
Madrid	Feb. 1–29		38	
Valencia	Mar. 7–13	4		
Vigo	Feb. 29–Mar. 13			Do.
Sweden:				
Goteborg	Feb. 22–28	82		
Malmo	do	394		
Switzerland				Jan. 25–31, 1920: Cases, 7,958. Feb. 1–7, 1920: Cases, 11,618.
Cantons—				
Aargau	Jan. 25–31	416		
Do	Feb. 1–7	753		
Basel	Jan. 25–31	1,639		
Do	Feb. 1–7	2,458		
Bern	Jan. 25–31	738		
Do	Feb. 1–7	2,108		
Geneva	Jan. 25–31	85		
Do	Feb. 1–7	208		
Grisons	Jan. 25–31	196		
Do	Feb. 1–7	308		
Lucerne	Jan. 25–31	755		
Do	Feb. 1–7	1,305		
Neuchatel	Jan. 25–31	68		
Do	Feb. 1–7	599		
Schwyz	Jan. 25–31	128		
Do	Feb. 1–7	397		
Solothurn	Jan. 25–31	265		
Do	Feb. 1–7	744		
Tecino	Jan. 25–31	2,238		
Do	Feb. 1–7	705		
Vaud	Jan. 25–31	2,238		
Do	Feb. 1–7	705		
Zurich	Jan. 25–31	541		
Do	Feb. 1–7	1,863		
Tunis:				
Tunis	Mar. 8–14		5	
Union of South Africa:				
Durban	Feb. 15–21		1	

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER.

Reports Received During Week Ended Apr. 16, 1920.[1]

CHOLERA.

Place.	Date.	Cases.	Deaths.	Remarks.
India				Jan. 25–31, 1920: Deaths, 2,090.
Calcutta	Feb. 8–14	30	27	
Philippine Islands:				
Provinces				Feb. 15–21, 1920: Cases, 54; deaths, 43.
Albay	Feb. 15–21	8	6	
Ambos Camarines	do	39	33	
Antique	do	7	4	
Manila	Feb. 22–28	1		
Provinces				Feb. 22–28, 1920: Cases, 81; deaths, 61.
Albay	Feb. 22–28	20	14	
Ambos Camarines	do	32	25	
Antique	do	9	4	
Palawan	do	10	9	
Tayabas	do	10	9	
Siam:				
Bangkok	Jan. 25–Feb. 7	39	17	

PLAGUE.

Egypt				Jan. 1–Mar. 11, 1920: Cases, 81; deaths, 48.
Cities—				
Suez	Mar. 5	1		
Provinces—				
Assiout	Mar. 3–9	8	2	
Girgeh	Mar. 5	1	1	Pneumonic.
Minieh	Mar. 7–8	5	1	
Hawaii:				
Kaloha	Mar. 22		1	
India				Feb. 8–14, 1920: Cases, 6,144; deaths, 4,708.
Bombay	Feb. 8–14	7	5	
Rangoon	do	43	44	
Java:				
East Java				Jan. 15–31, 1920: Cases, 14; deaths, 14. In Surabaya.
Peru:				
Trujillo	Feb. 23–Mar. 7	10	6	Including Salaverry.
Siam:				
Bankok	Feb. 1–21	3	3	
Straits Settlements:				
Singapore	Feb. 1–7	4	3	

SMALLPOX.

Algeria:				
Departments—				
Algiers	Feb. 1–20	18		City of Algiers, Feb. 1–29, 1920: Cases, 3; deaths, 2.
Do	Mar. 1–10	1		
Constantine	do	1		
Oran	Feb. 1–20	46		
Do	Mar. 1–10	32		
Austria				Nov. 23, 1919–Jan. 3, 1920: Cases, 13.
Vienna	Nov. 23–Jan. 3	10		
Belgium:				
Brussels	Jan. 25–31		1	
Canada:				
Nova Scotia—				
Sydney	Mar. 21–27		1	
Ontario				Mar. 14–20, 1920: Cases, 155; deaths, 2. In 29 counties and 44 localities.
Fort William and Port Arthur	Mar. 14–20	1		
Hamilton	Mar. 28–Apr. 3	2		
North Bay	do	1		
Ottawa	Mar. 21–27	2	1	
Quebec—				
Montreal	Mar. 21–Apr. 3	3		
China:				
Canton	Feb. 1–28			Present.
Foochow	Jan. 25–Mar. 6			Do.
Hankow	Feb. 29–Mar 6	1	1	
Mukden	Feb. 22–28			Do.
Chosen (Korea):				
Chemulpo	Feb. 1–29	8	2	
Fusan	do	1		
Seoul	do	114	32	
Czecho-Slovakia:				
Prague	Feb. 22–28	1	1	

[1] From reports of medical officers of the Public Health Service, American consuls, and other sources.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received During Week Ended Apr. 16, 1920—Continued.

SMALLPOX—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Egypt:				
Alexandria	Feb. 27–Mar. 4	37	14	
Cairo	Jan. 8–Feb. 4	20	6	
Port Said	Jan. 8–21	17	6	
Germany				Dec. 7, 1919–Jan. 17, 1920: Cases, 217. To preceding figures for Nov. 30–Dec. 6, add 14 cases.
Hungary				Nov. 3–Dec. 7, 1919: Cases, 15.
India				Jan. 25–31, 1920: Cases, 2,195.
Bombay	Feb. 8–14	27	10	
Calcutta	do	282	242	
Rangoon	do	10	4	
Italy:				
Leghorn	Mar. 8–14	1		
Messina	Mar. 1–7	1	1	
Palermo	Mar. 2–8	2		Province, 8 cases, 2 deaths, including San Fratello 1 case, 1 death.
Japan:				
Taiwan	Feb. 11–29	204	70	Entire island.
Tokyo	Mar. 1–14	11	9	
Yokohama	Feb. 1–29	19		
Java:				
West Java				Jan. 30–Feb. 5, 1920: Cases, 49; deaths, 8.
Batavia	Jan. 30–Feb. 5	2	3	
Luxemburg	Feb. 15–29	3		
Manchuria:				
Dairen	Mar. 2–8	1		
Mexico:				
Salina Cruz	Feb. 17–29	12		
Tehuantepec	Feb. 16–29	21		
Newfoundland				Mar. 19–25, 1920: Present at outports.
Philippine Islands:				
Manila	Feb. 15–21		1	
Portuguese East Africa				Present in interior, Feb. 15–21, 1920.
Lourenco Marques	Feb. 15–21	1		
Quelimane	do	5		
Spain:				
Bilbao	Feb. 10–20		1	
Madrid	Feb. 1–29		9	
Valencia	Mar. 7–26	17	2	
Vigo	Feb. 29–Mar. 6		2	
Tunis:				
Tunis	Mar. 8–14		1	

TYPHUS FEVER.

Algeria:				
Departments—				
Algiers	Feb. 14–20	1		
Constantine	Feb. 1–20	3		
Oran	do	33		
Do	Mar. 1–10	35		
Austria				Nov. 23, 1919–Jan. 3, 1920: Cases, 42.
Vienna	Nov. 23–Jan. 3	33		
Chile:				
Valparaiso	Feb. 8–Mar. 6		29	
Egypt:				
Alexandria	Feb. 27–Mar. 4	35	4	
Cairo	Jan. 8–Feb. 4	26	13	
Port Said	Jan. 15–28	1	1	
Germany				Dec. 7, 1919–Jan. 17, 1920: Cases, 73, of which 28 in civil population, including 10 Polish workmen; 45 among German troops.
Hungary				Nov. 3–Dec. 7, 1919: Cases, 30.
Budapest	Nov. 3–Dec. 7	18		
Mexico:				
San Luis Potosi	Mar. 22–28			Present.
Russia				Mar. 4, 1920: Reported present in nearly all Black Sea ports.
Turkey:				
Constantinople	Feb. 22–28	8	2	

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received from Dec. 27, 1919, to Apr. 9, 1920.

CHOLERA.

Place.	Date.	Cases.	Deaths.	Remarks.
China:				
Amoy	Nov. 4–17	.....	2	
Chosen (Korea)		.....	.....	Oct. 20–Nov. 16, 1919: Cases, 3,425; deaths, 3,144. Aug. 15–Nov. 16, 1919: Cases, 15,192; deaths, 9,823.
Chamulpo	Oct. 1–31	6	4	
Fusan	.....do	34	30	
Provinces—				
Keiki	Aug. 15–Nov. 16	224	135	
Kogen	.....do	64	38	
Kokai	.....do	4,015	2,770	
North Chusei	.....do	1	1	
North Heian	.....do	3,196	2,434	
North Kankyo	.....do	497	275	
North Keisho	.....do	63	35	
North Zenra	.....do	1,326	692	
South Chusei	.....do	930	590	
South Heian	.....do	3,031	1,858	
South Kankyo	.....do	870	551	
South Keisho	.....do	318	156	
South Zenra	.....do	657	288	
Greece:				
Saloniki	Oct. 10	1	.....	
India		.....	.....	Oct. 19–Dec. 27, 1919: Deaths, 23,388. Jan. 4–24, 1920: Deaths, 6,877.
Bombay	Nov. 2–8	1	1	
Do	Jan. 11–24	2	2	
Calcutta	Oct. 26–Dec. 27	181	166	
Do	Dec. 28–Jan. 31	73	71	
Madras	Nov. 23–Dec. 27	14	5	
Do	Dec. 28–Feb. 21	19	7	
Rangoon	Nov. 30–Dec. 27	12	9	
Do	Dec. 28–Jan. 31	3	3	
Indo-China:				
Saigon	Oct. 27–Nov. 23	5	4	
Japan:				
Kobe	Nov. 24–30	2	.....	
Taiwan		.....	.....	For entire island: Oct. 22–Nov. 30, 1919: Cases, 651; deaths, 385.
Tokyo	Nov. 10–20	1	1	
Java:				
East Java		.....	.....	Oct. 5–11, 1919: One case, 1 death. At Pasoeroean.
West Java		.....	.....	Nov. 5–Dec. 25, 1919: Cases, 17. Jan. 24–29, 1920: Cases, 1.
Batavia	Nov. 5–Dec. 25	17	.....	
Do	Jan. 24–29	1	1	
Philippine Islands:				
Manila	Nov. 2–Dec. 27	20	10	
Provinces		.....	.....	Nov. 2–Dec. 27, 1919: Cases, 1,574; deaths, 1,151.
Albay	Nov. 2–Dec. 27	339	240	
Ambos Camarines	Nov. 2–Dec. 20	66	34	
Antique	Nov. 2–Dec. 27	160	113	
Batangas	.....do	39	28	
Bohol	.....do	34	27	
Cagayan	Nov. 3–15	35	20	
Capiz	Nov. 2–8	6	5	
Cavite	Nov. 2–Dec. 6	25	16	
Cebu	Nov. 2–Dec. 20	23	14	
Davao	Nov. 9–15	6	4	
Ilocos Notre	Nov. 2–29	42	40	
Ilocos Sur	Nov. 2–22	18	15	
Iloilo	Nov. 2–Dec. 20	55	33	
Isabela	Nov. 2–Dec. 13	107	77	
Laguna	Nov. 2–Dec. 20	23	17	
Mindoro	Nov. 2–Dec. 6	81	30	
Mountain	Nov. 2–Dec. 13	6	4	
Occidental Negros	Nov. 2–Dec. 27	100	53	
Pangasinan	Nov. 20–Dec. 20	60	46	
Rizal	.....do	41	15	
Sorsogon	Nov. 2–Dec. 13	208	139	
Tarlac	Nov. 2–22	11	11	
Tayabas	Nov. 2–Dec. 27	60	35	
Union	Nov. 9–15	5	5	
Manila	Feb. 8–14	1	.....	
Provinces		.....	.....	Dec. 28, 1919–Feb. 14, 1920: Cases, 727; deaths, 473.
Albay	Dec. 28–Feb. 14	34	29	
Ambos Camarines	.....do	216	138	
Antique	.....do	203	52	
Batangas	.....do	19	12	
Cavite	Jan. 11–17	1	1	

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received from Dec. 27, 1919, to Apr. 9, 1920—Continued.

CHOLERA—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Philippine Islands—Contd.				
Provinces—Continued.				
Iloilo	Dec. 28-Jan. 3	9	2	
Isabela	Jan. 11-17	6	3	
Laguna	Dec. 28-Jan. 3	2	2	
Mindoro	Jan. 4-24	24	11	
Mountain	Dec. 28-Jan. 10	11	6	
Occidental Negros	Jan. 4-17	21	19	
Palawan	Jan. 11-Feb. 14	49	28	
Pangasinan	Dec. 28-Jan. 3	1		
Rizal	Feb. 1-7	3		
Samar	Jan. 4-24	44	30	
Sorsogon	do	51	40	
Tayabas	do	23	19	
Poland:				
Garwolin				Present in November, 1919.
Kowal				Do.
Stryl				Do.
Russia:				
Novorossisk	Nov. 8-11	3		
Odessa	Oct. 25-Nov. 7	93		
Siam:				
Bangkok	Dec. 7-27	163	57	Oct. 5-Dec. 15, 1919: Deaths, 1,080.
Do	Dec. 28-Jan. 10	53	21	
Straits Settlements:				
Singapore	Oct. 5-Dec. 27	15	14	
Do	Dec. 28-Jan. 17	4	2	
Sumatra:				
Deli	Oct. 1-31	1	1	
Medan	Nov. 1-30	1	1	

PLAGUE.

Argentina:				
Rosario	Dec. 1-31		7	
Brazil:				
Bahia	Nov. 9-15	1	1	
Do	Jan. 25-31	1	1	
Porto Alegre	Nov. 1-30		3	
Rio de Janeiro	Nov. 2-Dec. 27	9	4	
Do	Jan. 11-17	1		
British East Africa:				
Kisumu	Sept. 28-Nov. 1	6	6	Dec. 14-20, 1919: Present in vicinity.
Do	Feb. 1-7	1	1	
Mombassa	do	6	6	
Ceylon:				
Colombo	Oct. 26-Dec. 27	36	35	
Do	Dec. 28-Feb. 7	33	10	
Chile:				
Antofogasta	Dec. 8-14	1		
Do	Feb. 8-14	1		
China:				
Hongkong	Dec. 7-13	1		
Do	Feb. 1-7	1	1	
Ecuador:				
Guayaquil	Nov. 1-31	2		
Do	Jan. 1-Feb. 28	31	3	
Egypt				Jan. 1-Dec. 25, 1919: Cases, 867; deaths, 469. Jan. 1-Mar. 4, 1920: Cases, 66; deaths, 44.
Cities—				
Alexandria	Dec. 3	1	1	From vessel Rachid Pacha.
Port Said	Feb. 13	1		
Suez	Feb. 1-29	2	2	
Provinces—				
Assiout	Nov. 15-21	30	17	
Do	Jan. 13-Mar. 2	40	22	
Fayoum	Mar. 2	1	1	
Girgeh	Mar. 4	2	2	
Minieh	Mar. 1-4	4	1	
Greece:				
Saloniki	Oct. 6-Dec. 21	19	7	
Hawaii:				
Kaloha	Feb. 23	1	1	

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received from Dec. 27, 1919, to Apr. 9, 1920—Continued.

PLAGUE—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
India				Oct. 19-Dec. 27, 1919: Cases, 31,542; deaths, 23,443. Dec. 28, 1919-Feb. 7, 1920: Cases, 23,950; deaths, 18,873.
Bombay	Oct. 19-Dec. 27	6	6	
Do	Jan. 4-Feb. 7	6	6	
Calcutta	Jan. 25-31	1	1	
Karachi	Nov. 9-29	3	2	
Do	Jan. 11-17	2		
Madras Presidency	Nov. 9-Dec. 27	1,068	704	
Do	Dec. 28-Feb. 21	3,273	2,412	
Madras	Jan. 25-Feb. 14	4	2	
Rangoon	Nov. 2-Dec. 27	29	27	Oct. 19-Nov. 1, 1919: Cases, 10; deaths, 7.
Do	Dec. 28-Feb. 7	130	121	
Indo-China:				
Saigon	Oct. 27-Dec. 7	11	9	
Do	Jan. 26-Feb. 7	1	1	
Java:				
East Java				Sept. 28-Dec. 31, 1919: Cases, 1,500; deaths, 1,499. Surabaya Residency, Jan. 1-14, 1920: Cases, 11; deaths, 11.
Surabaya	Jan. 1-14	11	11	
Mesopotamia:				
Bagdad	Jan. 3-9	1	1	
Peru:				
Callao	Nov. 1-30		3	
Paita	Dec. 29-Jan. 17	23	17	
Salaverry (Trujillo)	Nov. 23-Dec. 21	9	1	Present in surrounding country and in vicinity.
Do	Dec. 29-Feb. 18	23	12	
Senegal:				
Dakar	Nov. 1-30		146	Including Dakar and vicinity.
Siam:				
Bangkok	Dec. 14-20	4	2	
Straits Settlements:				
Singapore	Oct. 26-Dec. 27	7	6	
Do	Jan. 4-31	4	2	
Syria:				
Beirut	Dec. 22	29		
Turkey:				
Constantinople	Nov. 14-Dec. 20	11		Present Dec. 11, 1919. Nov. 14-20, 1919: Present in vicinity.
On vessel:				
S. S. Alps Maru	Feb. 28-Mar. 5	2	2	At Port of London, England. Vessel left Yokohama, Japan, Dec. 3, 1919; arrived Suez Jan. 21, 1920. Destination, Hamburg.
S. S. Kaisar-i-Hind	Nov. 28	3		At Port Said, Egypt. From Bombay, Nov. 15, for London.

SMALLPOX.

Algeria:				
Department—				
Algiers	Nov. 11-Dec. 31	65		
Do	Jan. 1-Feb. 29	85		
Constantine	Nov. 11-Dec. 31	15		
Do	Jan. 1-Feb. 29	37		
Oran	Nov. 11-Dec. 31	90		
Do	Jan. 1-Feb. 29	90		
South Territory	do	5		
Arabia:				
Aden	Dec. 24-30	1	1	
Do	Jan. 6-20		3	
Argentina:				
Rosario	Jan. 1-31		1	
Belgium:				
Brussels	Dec. 28-Jan. 3		1	
Bolivia:				
La Paz	June 29-Dec. 27		216	Dec. 29, 1918-June 28, 1919: Cases, 86; deaths, 44. Dec. 14-20, 1919: Cases, 7; deaths, 5.
Do	Dec. 28-Feb. 21	21	32	
Brazil:				
Bahia	Oct. 26-Nov. 22	1,704	1,022	
Do	Dec. 28-Feb. 21	514	377	
Para	Feb. 8-14		2	

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received from Dec. 27, 1919, to Apr. 9, 1920—Continued.

SMALLPOX—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Brazil—Continued.				
Pernambuco	Nov. 10–Dec. 28	123	9	
Do	Dec. 29–Jan. 11	82	4	
Rio de Janeiro	Sept. 28–Dec. 27	429	119	
Do	Dec. 28–Jan. 17		13	
Santos	Nov. 24–30		1	
Do	Jan. 5–18		2	
Canada:				
British Columbia—				
Vancouver	Nov. 30–Dec. 6	1		
Do	Jan. 4–17	1		
Manitoba—				
Winnipeg	Jan. 11–Mar. 6	6		
New Brunswick—				
Gloucester County				Oct.–Nov., 1919: Cases, 3.
St. John	Jan. 29–Mar. 13	8		
Nova Scotia—				
Halifax	Dec. 21–27	2		
Do	Jan. 4–Feb. 14	4		
Sydney	Dec. 7–13	1		
Do	Dec. 28–Mar. 6	20		
Counties—				
Cumberland	Dec. 14–20			Present.
Inverness	do			Do.
Pictou	do			Do.
Ontario				Nov. 1–29, 1919: Cases, 1,673.
Fort William and Port Arthur	Jan. 25–Feb. 14	5		Nov. 30–Dec. 6, 1919: Cases, 125, in 45 localities, exclusive of Dysart and Toronto. Dec. 1–31, 1919: Cases, 1,414; deaths, 2. Dec. 28, 1919–Mar. 6, 1920: Cases, 1,997; deaths, 32.
Hamilton	Dec. 14–20	3		
Do	Jan. 4–Mar. 20	30		
Kingston	Dec. 21–27	1		
Do	Dec. 28–Mar. 6	11		
North Bay	Jan. 11–Mar. 6	4		
Ottawa	Dec. 14–20	1		
Do	Dec. 28–Mar. 20	19		
Peterborough	Dec. 21–27	3		
Do	Dec. 28–Mar. 20	50	2	
Prescott	Jan. 4–10	1		
Sault Ste. Marie	Dec. 7–27	1		
Do	Dec. 28–Jan. 3	1		
Toronto	Dec. 7–27	727		
Do	Dec. 28–Mar. 27	862	7	
Windsor	Dec. 14–27	2		
Do	Mar. 21–27	2		
Prince Edward Island—				
Summerside	Feb. 14–20	3		In one family.
Quebec—				
Bonaventure and Gaspe	Jan. 1–Feb. 28	28		Counties.
Montreal	Dec. 7–27	3		
Do	Jan. 18–Mar. 20	19		
Quebec	Dec. 7–27	4		
Do	Jan. 4–Mar. 6	25		
Saskatchewan—				
Moosejaw	Dec. 28–Jan. 31			
Saskatoon	Dec. 14–20	1		
Ceylon:				
Colombo	Nov. 16–Dec. 13	10	9	
Do	Dec. 28–Feb. 7	9	1	
China:				
Amoy	Nov. 4–Dec. 22			Present. Dec. 22: Four deaths.
Do	Dec. 30–Feb. 6	1	5	
Canton	Nov. 2–Dec. 27			Present.
Do	Dec. 28–Jan. 31			Do.
Chungsha	Jan. 4–10	55		
Chungking	do			Do.
Do	Dec. 28–Jan. 24			Do.
Dairen	Feb. 3–9	1		
Foochow	Nov. 16–Dec. 27			Do.
Do	Dec. 28–Feb. 14			Do.
Hongkong	Jan. 25–31	1		

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received from Dec. 27, 1919, to Apr. 9, 1920—Continued.

SMALLPOX—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
China—Continued.				
Mukden	Jan. 18–24			Present.
Nanking	Dec. 6–27			Do.
Do	Dec. 28–Feb. 7			Do.
Shanghai	Dec. 22–28	2		
Tientsin	Feb. 1–7	1		
Chosen (Korea):				
Chemulpo	Dec. 1–31	1	1	
Do	Jan. 1–31	2	1	
Fusan	Oct. 1–Dec. 31	12	1	
Seoul	do	19	4	
Do	Jan. 1–31	48	12	
Colombia:				
Barranquilla	Nov. 16–Dec. 20	50	2	
Do	Jan. 11–Mar. 6	500	4	Stated to be epidemic, Jan. 18–24, 1920. About 200 cases, Feb. 1–14.
Cuba:				
Habana	Jan. 31	4		Children living in same house.
Czecho-Slovakia:				
Prague	Feb. 8–14	1		
Egypt:				
Alexandria	Nov. 12–Dec. 16	32	22	
Do	Jan. 1–Feb. 11	35	14	
Cairo	Oct. 1–Dec. 23	64	31	
Do	Jan. 1–7	4	2	
Port Said	Oct. 1–Dec. 23	13	6	
Do	Jan. 1–7	11	3	
Finland:				
Provinces				July 16–Dec. 31, 1919: Cases, 83. Jan. 15–31, 1920: Cases, 14.
Abo Och Borneborg	Nov. 1–15	1		
Nyland	July 16–Dec. 15	29		
St. Michael	Dec. 1–15	7		
Tavastehus	July 16–Dec. 31	7		
Do	Jan. 15–31	6		
Vasa	Dec. 1–31	2		
Do	Jan. 25–31	8		
Viborg	July 16–Dec. 31	37		
France:				
Paris	Jan. 1–31	3	2	
Germany				Oct. 5–15, 1919: Cases, 32. In addition to previously reported cases; Sept. 28–Dec. 6, 1919: Cases, 161 (exclusive of Prussia).
Prussia	Oct. 29–Nov. 29	1,100	323	
Great Britain:				
Glasgow	Feb. 29–Mar. 6	3		
London	Feb. 22–28	4		
Greece:				
Saloniki	Nov. 10–Dec. 28	26	26	
Do	Dec. 9–Feb. 21	47	39	In vicinity: Drama, 1 case; Zagoritzani, 9 cases, 1 death; Serres, 1 case.
India				Oct. 19–Dec. 27, 1919: Deaths, 3,421; Jan. 4–10, 1920: Deaths, 2,981.
Bombay	Oct. 12–Dec. 20	46	11	
Do	Dec. 28–Feb. 7	69	19	
Calcutta	Oct. 26–Dec. 27	186	260	
Do	Dec. 28–Jan. 17	782	677	
Karachi	Dec. 21–27	6	2	
Do	Jan. 18–Feb. 21	27	17	
Madras	Nov. 2–Dec. 27	31	13	
Do	Dec. 28–Feb. 21	40	10	
Rangoon	Oct. 19–Dec. 27	51	18	
Do	Dec. 28–Feb. 7	61	21	
Indo-China:				
Saigon	Oct. 27–Nov. 23	2		
Do	Jan. 19–25	2		
Italy:				
Genoa	Jan. 5–Feb. 22	16		Province: Nov. 17–Dec. 28, 1919: Cases, 15; deaths, 3. Jan. 12–18, 1920: Cases, 13.
Leghorn	Jan. 4–Mar. 7	5		
Messina	Nov. 10–Dec. 28	55	8	Province of Messina: Dec. 14–28, 1919: Cases, 68. Jan. 5–Feb. 22, 1920: Cases, 136; 1 death.
Do	Dec. 29–Feb. 22	36	5	

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received from Dec. 27, 1919, to Apr. 9, 1920—Continued.

SMALLPOX—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Italy—Continued.				
Milan	Oct. 1-Nov. 30	12	2	
Naples	Dec. 28-Feb. 15	13	17	
Palermo	Dec. 27-Feb. 9	12	3	
San Fratello	Dec. 1-28	49	5	
Do	Dec. 29-Feb. 22	28	1	
Trieste	Jan. 3-10	2		
Turin	Dec. 28-Feb. 15	5		
Japan:				
Kobe	Dec. 15-21	1		
Do	Feb. 23-29	1		
Nagasaki	Feb. 2-8	1	1	
Taiwan	Nov. 1-31	36	7	Entire island.
Do	Jan. 1-31	160	46	
Java:				
East Java				Sept. 28-Dec. 18, 1919: Cases, 34. Jan. 1-7, 1920: Cases, 1.
Residency—				
Surabaya	Oct. 25-Dec. 18	26		
Do	Jan. 1-7	1		
West Java				Oct. 17-Dec. 25, 1919: Cases, 659; deaths, 151. Jan. 2-22, 1920: Cases, 182; deaths, 23.
Batavia	Oct. 17-Dec. 12	49	22	
Do	Jan. 2-22	5	4	
Mesopotamia:				
Bagdad	Jan. 10-30	5		
Mexico:				
Acapulco	Nov. 9-15	2		
Chihuahua	Dec. 21-27	3	3	
Do	Jan. 11-Mar. 20		3	
Ciudad Juarez	Jan. 11-Feb. 7		2	
Guadalajara	Dec. 1-31	1		
Do	Jan. 1-31	1		
Mexico City	Nov. 16-Dec. 20	11		
Do	Feb. 15-28	2		
Salina Cruz	Feb. 1-15	6		
San Luis Potosi	Dec. 14-20		1	
Do	Jan. 18-Mar. 14	4	6	
Tehuantepec	Dec. 25-31	6		
Do	Jan. 1-Feb. 15	52		
Newfoundland:				
St. Johns	Dec. 20-26	3		Dec. 13-26, at outports, 6 cases. Present at 8 other localities.
Do	Dec. 27-Mar. 5	13		Outports, Dec. 27, 1919-Mar. 12, 1920: Cases, 25. Present at other localities.
Panama:				
Colon	Dec. 15-21	1		
Portugal:				
Lisbon	Nov. 30-Dec. 27		55	
Do	Dec. 28-Feb. 28		101	
Oporto	Dec. 7-20	5	5	
Do	Dec. 28-Jan. 3	1	1	
Portuguese East Africa				Present in interior, in 5 districts, Nov. 9-Dec. 20, 1919, with 56 reported cases. In interior, Dec. 28, 1919-Feb. 7, 1920: Present.
Towns—				
Chai-Chai	Feb. 1-7	1		
Chinde	Dec. 28-Jan. 25	21		
Inhambane	Dec. 7-27	7		
Do	Jan. 4-Feb. 14	8		
Lourenco Marques	Nov. 23-Dec. 20	9		
Mozambique	Dec. 7-27	2		
Quelimane	....do	4		
Do	Jan. 4-31	4		
Tete	Dec. 7-27	1		
Siberia:				
Vladivostok	Dec. 19-31	17	3	
Spain:				
Barcelona	Nov. 6-Dec. 27		26	
Do	Dec. 28-Mar. 4		38	
Bilbao	Nov. 1-Dec. 20		4	
Cadiz	Oct. 1-Nov. 30		6	
Valencia	Nov. 10-Dec. 27	39	9	
Do	Dec. 28-Feb. 28	92	16	
Vigo	Nov. 18-Dec. 27	14		
Do	Dec. 28-Jan. 31	2	3	Jan. 11-17, 1920: Present in vicinity.
Sumatra:				
Medan	Oct. 1-31	8		

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received from Dec. 27, 1919, to Apr. 9, 1920—Continued.

SMALLPOX—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Tunis:				
Tunis	Dec. 23-29	1		
Do	Jan. 19-Feb. 29	6	4	
Turkey:				
Constantinople	Nov. 9-Dec. 14	27		
Do	Feb. 18-24	5	3	
Union of South Africa:				
Johannesburg	Oct. 1-Dec. 31	21		
On vessel:				
S. S. Roggeveen		1		Vessel from Java: at Noumea, New Caledonia. Case left at Noumea. Vessel arrived at Sydney, Jan. 2, 1920.
S. S. Sarcoxie	Dec. 23	1		At Ponta Delgada, Azores, from Rotterdam for New York.
S. S. Vestnorge	Jan. 15	1		Mild. At Kingston, Jamaica, from Philadelphia, via Norfolk.

TYPHUS FEVER.

Algeria:				
Departments—				
Algiers	Dec. 11-31	2		Algiers (city), Jan. 1-31, 1920: Cases, 1; deaths, 1.
Do	Jan. 11-Feb. 29	2		
Constantine	Nov. 11-Dec. 31	2		
Do	Jan. 1-31	19		
Oran	Nov. 21-Dec. 11	5		
Do	Jan. 21-Feb. 29	20		
Austria				Sept. 7-Nov. 22, 1919: Cases, 17.
Vienna	Sept. 7-14	5		
Belgium:				
Ghent	Jan. 25-31		2	
Bolivia:				
La Paz	June 29-Dec. 20	30	31	Dec. 29, 1918-June 28, 1919: Deaths, 52.
Do	Jan. 4-Feb. 21	10	6	
Brazil:				
Ceara	Jan. 4-10	1		
Porto Alegre	Feb. 1-7		1	
Bulgaria:				
Sofia	Dec. 21-31	2	1	
Do	Jan. 1-Feb. 21	3		
Varna	Feb. 2-8	110		To Feb. 21: Present.
Vratza	Jan. 25-31			Present. Also in vicinity.
Canada:				
Ontario Province				Dec. 1-31, 1919: One case.
Chile:				
Antofagasta	Nov. 17-Dec. 14	14		
Santiago				Jan. 12-Sept. 30, 1919: Cases, 5,153; deaths, 1,023. Outbreak in October, 1918.
Valparaiso	Nov. 9-Dec. 27	955	114	Dec. 1-13, 1919: Cases, 700; deaths, 18.
Do	Dec. 28-Feb. 8	235	66	
China:				
Antung	Nov. 3-Dec. 14	2		
Tientsin	Feb. 1-7	1		
Czecho-Slovakia:				
Prague	Dec. 21-27	1		
Do	Jan. 25-Feb. 7	2	1	
Egypt:				
Alexandria	Nov. 12-Dec. 16	6	1	
Do	Jan. 1-Feb. 11	31	8	
Cairo	Oct. 1-Dec. 23	113	46	
Do	Jan. 1-7	8	3	
Port Said	Oct. 1-Dec. 16	3	1	
Esthonia				Feb. 16, 1920: Cases, 7,500 to 8,000. Estimated mortality, 40 per cent.
Narva	Feb. 16	2,500		
Reval	do	2,500		
Finland:				
Province—				
Viborg	July 16-31	2		

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received from Dec. 27, 1919, to Apr. 9, 1920—Continued.

TYPHUS FEVER—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Germany				Oct. 5–Dec. 6, 1919: Cases, 10—civil population, 3; military, 4; repatriated soldiers, 3.
Great Britain:				
Belfast	Dec. 28–Jan. 3	1	1	
Glasgow	Nov. 30–Dec. 6	2		
Greece:				
Cavalla	Nov. 17–Dec. 28	4		
Drama	Nov. 24–Dec. 28	6		
Saloniki	Oct. 6–Dec. 21		43	
Do	Dec. 28–Feb. 21	81	7	In vicinity, at Cavalla, 1 case; Prani, 1; Vertekep, 6 cases; Zagoritsani, 3.
Thassos Island	Dec. 22–28	1		
Zihna	do	1		
Hungary				Aug. 25–Sept. 14, 1919: Cases, 6.
Italy:				
Brindisi	Dec. 22–28	1		
Naples	Jan. 19–25	2	1	
Trieste	Dec. 14–27	3		
Do	Dec. 28–Feb. 3	5	2	
Venice	Nov. 17–Dec. 21	6	1	
Japan:				
Nagasaki	Dec. 1–28	4	2	
Do	Jan. 12–Feb. 22	4	1	
Mexico:				
Chihuahua	Dec. 21–27	2		
Do	Jan. 11–17		1	
Mexico City	Nov. 16–Dec. 27	129		
Do	Dec. 28–Feb. 28	188		
Saltillo	Nov. 1–30	2	1	
San Luis Potosi	Dec. 14–27			Present.
Do	Dec. 28–Mar. 7			Do.
Paraguay:				
Asuncion	Nov. 30–Dec. 6	1		
Peru:				
Callao	Nov. 1–30		1	
Cerro de Pasco	Dec. 7–13	1		
Poland				Nov. 1–30, 1919: Cases, 11,264; deaths, 942. Including Province of Posen.
Galicia (Province)	Nov. 1–30	5,716	616	
Warsaw	do	107	19	Oct. 1–31, 1919: Cases, 129; deaths, 12.
Portugal:				
Lisbon	Dec. 6–12		2	
Oporto	Dec. 21–27	1		
Siberia:				
Vladivostok	Dec. 25–31	23	13	
Spain:				
Barcelona	Nov. 20–26	7		
Bilbao	Dec. 22–31		1	
Corunna	Nov. 24–Dec. 7	2		
Madrid	Jan. 1–31		1	
Tunis:				
Tunis	Dec. 14–20	1		
Do	Dec. 29–Mar. 7	4	2	
Turkey:				
Constantinople	Nov. 14–Dec. 27	49		
Do	Feb. 8–21	46	1	

YELLOW FEVER.

Brazil:				
Bahia	Oct. 26–Nov. 8	1	2	
Mexico:				
Campeche	Dec. 20	1		
Merida	Dec. 7–27	4	2	The cases were sent from Opichen, vicinity of Muna. One death in case from Muna. Total to Dec. 27: Cases, 47; deaths, 21.
Do	Dec. 28–Mar. 20	2		